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ABSTRACT

This monograph presents a review of the literature on college residence life organized around an ecosystemic model and student development theory. This model distinguishes between events and processes at four levels: suprasystem (relationship between residence and university systems); macrosystem (residence hall); mesosystem (the hall floor); and microsystem (the room), with processes across levels seen as interdependent. The model's four levels correspond to the major sections of the review. The review identified eight thematic issues: (1) the residence system is most responsible for student social development; (2) social development precedes and influences academic development; (3) men and women enter with divergent degrees of preparedness; (4) such differences are reflected in their patterns of self-selection (5) social processes at the micro-level drive student development in residences; (6) students' relations with their parents have a potent effect on student development; (7) research and programming in residence life requires a differentiated style of thinking; and (8) academic and historical time intervals must be distinguished. In concluding, the review identifies 4 theoretical generalizations and advances 40 implications for practice. Included are nearly 400 references. (JB)

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# STUDENT-ENVIRONMENT STUDY GROUP

## RESIDENCE LIFE SYSTEMS AND STUDENT DEVELOPMENT: A CRITICAL REVIEW AND REFORMULATION.

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# RESIDENCE LIFE SYSTEMS AND STUDENT DEVELOPMENT: A CRITICAL REVIEW AND REFORMULATION.

by

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## EXECUTIVE SUMMARY

Review of the residence life literature is organized around an **ecosystemic model**. This distinguishes between events and processes at **four levels**: The **suprasystem** (the relationship between residence and university systems), the **macrosystem** (the residence hall), the **mesosystem** (the hall floor), and the **microsystem** (the room), with processes across levels seen as interdependent. The model's four levels correspond to the major sections into which the review is divided.

The suprasystem level is empirically empty; no studies have explored explicitly the relationship between university and residence life systems. Given that the same students constitute both systems, it is reasonable to expect that these systems should be interdependent. At present, this expectation receives support from anecdotal evidence only. It is suggested that research at this level is warranted, and that such efforts should track the interaction between people rather than respect traditional administrative boundaries.

The macrosystem level accounts for the majority of research in the literature. Findings at this level yield several trends: (1) students are typically satisfied with residence living, especially when housed homogeneously, and see it primarily as a opportunity to make new friends; (2) this is especially true when residence students are compared to off-campus students, with the former displaying greater development, involvement, educational aspiration and persistence; (3) these developmental benefits do **not** extend directly to academic performance, but rather indirectly to concommitants such as academic orientation and intellectuality; (4) such concommitants also vary by perceived social climate, with female halls characteristically supportive, male halls competitive, and coed halls somewhere in between; (5) given the choice, students who self-select into coed or living-learning centres benefit in terms of the concommitants noted above as well as by broader opportunities for intellectual stimulation and interpersonal relations; fewer benefits accrue to same-sex residences, with same-sex all-freshman residences contraindicated developmentally (especially among males) although preferred by the students in question; and (6) all of the above trends are cross-cut by hall size and population density, with high-rise, high-density residences associated with crowding stress, especially among women.

The mesosystem level has received comparatively little attention in the research literature, with the findings corres- pondingly mixed. However, several prominent trends do emerge: (1) across North America, floor-based residence programs are extremely diverse and show little consistency regarding outcome; their generalizability to other campuses is also unknown, although there is some evidence that students' response to floor experience generalizes to the classroom; (2) similar lack of consensus characterizes the selection, training or influence of resident assistants; and (3) peer group relations emerge as extremely potent sources of developmental influence - even more important than faculty-student interaction - mediated by floor homogeneity (positive), room proximity (positive), gender (mixed), floor population density (negative) and architectural design (mixed).

The microsystem level has received moderate attention yielding a few trends: (1) intensive efforts have been made to identify predictors of roommate compatibility, thus far without success; at

best, the four classes of variables (personality; attitudes/values; background; living habits) has achieved only low predictive validity; (2) the majority of roommates do not subsequently sustain long-term relationships; (3) high quality roommate relationship confer substantial developmental benefits but are correspondingly demanding of roommate communication and interpersonal skills; (4) on-going relations between students and their parents are potent sources of developmental influence, either negatively or positively; however, such relations have received minimal attention in this literature; (5) room over-assignment has few academic consequences but is associated with negative social effects, especially among women; particularly damaging is the possibility of coalition formation in which two students join together against a third, with significant developmental deficits for the resulting isolate; and (6) a variety of design features are identified which affect the perception of room density, including room illumination, the use of partitions, and the extent to which room design is fixed or can be altered by students to suit their requirements.

As the narrative unfolds, a total of eight thematic issues are identified which cross-cut substantive areas of study:

1. The residence system is the context on campus most responsible for student social development.
2. Student social development precedes and influences academic development, shaping student identity and interpersonal skills in ways which promote (or impede) their readiness to acquire academic skills. The key to this process is the formation of primary relationships, characterized by closeness and meaning, within a community of peers.
3. Men and women typically enter university with divergent degrees of preparedness for its social demands. In general, women display greater social maturity and sensitivity than men, and have correspondingly different residence preferences and reactions.
4. Such differences are also reflected in their patterns of self-selection. Such variation highlights the important extent to which the interaction among residents creates their living environment.
5. Social processes at the micro-level are the key engine driving stduent development in residence. This is enacted in the form of context-specific interaction patterns. In particular, roommate relations characterized by mutual support, open communication, and self-disclosure appear to facilitate development; their absence together with roommate coalitions tend to impede it.
6. Students' relations with their parents have a potent effect on student development. Further, students' primary relations with roommates and parents often appear to interact in multiplicative fashion, with more (or less) development occurring as a result.
7. Research and programming in residence life requires a differentiated style of thinking. For example, with respect to research concerning territoriality, the question is not whether density is consequential, but rather (1) what level of density, (2) has what consequences, (3) among which students, (4) in what context(s), (5) over what time period.
8. Two time intervals must be distinguished: academic and historical time. The academic year is sufficient to see marked developmental changes, although the interpretation of such changes

8. Two time intervals must be distinguished: academic and historical time. The academic year is sufficient to see marked developmental changes, although the interpretation of such changes will always be specific to an historical epoch.

Finally, the review idenitifies four theoretical generalizations and advances 40 practice implications. In closing, the implications of the review for theory, research and practice are explored, including six higher-order practice implications.

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## 1.0 INTRODUCTION

Residence life systems are designed to provide students who wish to live away from home with housing, food and, frequently, some form of programming. Such systems are hardly new, their origin roughly coincident with the founding of the university itself around the 13th century (Adelman, 1969). Then, as now, their development is diversely explained (Morgan & Dowell, 1979): as a response to competition and specialization in higher education; the desire of adolescences for independence and autonomy; regional factors, as local institutions seek to attract students; the recent availability of financial grants to students; and, the comparatively high cost of accommodation in the community.

This said, the evolution of residence systems has varied tremendously from one location to another. In the United States, for example, its origin can be traced to the founding of Harvard College in 1636 (Boyer, 1987). While the proportion of institutions having residence life systems varies tremendously by institutional type (Andersen & Atelsek, 1983), overall, some 40% of all undergraduates in 1984 lived on campus (Boyer, 1987). Given that American higher education now encompasses in excess of 2,100 institutions and serves more than 12 million students (Boyer, 1987), this means that at present about 5 million students participate in residence life systems each year.

By contrast, organized residence life systems did not exist in Canada (Klein & Sears, 1969; Adelman, 1969) or the United Kingdom (Morgan & McDowell, 1979) until after the Second World War. There, institutions of higher education are few in number and, relative to the United States, serves a comparatively small population of students. In Canada, for example, a total of 65 universities and a larger number of colleges served just under one million students in 1983. While the proportion of students living in residence is not known, knowledgable informants suggest that it is probably lower than that found in the United States.

In this context, two other historical trends are worthy of note. First, the popularity and character of residence life systems have varied through time. For example, the policy of in loco parentis, in place throughout the 1940s and 1950s, was vociferously rejected in the 1960s, as students deserted residence halls in large numbers. Decline in revolutionary fervour coupled with escalating increases in the cost of housing in the community saw a return to residence in the 1970s. In the 1980s, residence housing has never been more popular (Williams et al., 1980). Moreover, such shifts in student population have been associated with increasing diversification of residence life systems. Where segregated single-sex housing was the norm, especially for freshmen, a variety of options now exists, including coeducational housing, housing designed to serve special needs groups (eg. married, handicapped), and experimental housing arrangements (eg. living-learning centres [LLC]) which bring students and faculty together). Such systems also vary in the extent to which access to them involves voluntary self-selection or is mandatory, again especially for freshmen.

Second, the last two decades has seen the notion of student development become a guiding theme of student service divisions across North America (Bloland, 1986; Benjamin, 1986). This trend includes residence life systems. The result has been much programming and research concerned with

the developmental impact of such systems (DeCoster & Mable, 1980). Indeed, the shear size of this literature is evidenced by a series of bulky bibliographies which seek merely to encompass it (eg. Adelman, 1969; Klein & Sears, 1969; Ebbers et al., 1978; Blimling et al., 1987).

The availability of such a rich database would naturally imply that our knowledge base should be substantial as regards the relationship between residence life systems and student development. Nowhere should this be more evident than in reviews of the literature whose primary purpose is to systematize what has been learned. Certainly, such reviews are available in abundance (Blimling & Miltberger, 1981; Brumer, 1984; Buffington, 1984; Feldman & Newcomb, 1969; Heilweil, 1973; Lapidus et al., 1985; Longino, 1972; Ostroth, 1981; Philips, 1976; Scherer, 1969; Schroeder, 1978, 1980; Schroeder & Sledge, 1966; Spencer, 1979; Sprong, 1983; Upcraft, 1982; Williams & Reilley, 1972, 1974; Williams et al., 1980).

Without exception, however, these efforts at systematization are problematic on at least three grounds. First, all are issue-driven, that is, organized on the basis of an arbitrary selection of unrelated issues. Consequently, not only does the salience of a given issue wax and wane through time, but, more importantly, such fragmentation does not lend itself to the discovery of variables, dimensions, factors or themes which transcend any given issue. In short, this approach does not, and cannot, contribute to knowledge with respect to residence life systems.

Second, a concomitant problem is that all are necessarily partial in the topics they cover. If the topic of roommate compatibility is a focus of attention in one review, a related topic, the effects of residential crowding, is typically ignored. If student development is explored in terms of academic achievement, then complementary facets, such as maturation or adjustment, are omitted. And so it goes, with each reviewer exploring a parochial set of topics of interest to a limited audience. In short, a relatively comprehensive review does not now exist with regard to the relationship between residence life systems and student development, however defined.

Third, with rare exceptions (eg. Lapidus et al., 1985), most reviews are concerned wholly with description. Consequently, they are typically rather uncritical. Studies are described and some trends identified, but seldom is there any sense of: the strengths and weaknesses in a given body of work; the central research questions being addressed and whether these are framed appropriately; the guiding assumptions underlying any particular method or approach; or, the basis for framing fruitful new questions.

These weaknesses in the existing literature effectively frame the purposes of the present work, namely:

1. To develop a theoretical framework as a means of organizing the existing residence life literature; this will also set out the central assumptions intended to guide the subsequent interpretation of the literature;
2. To use that framework as the basis for critically evaluating existing residence life data, at least as it pertains to **student development**, broadly defined; that is, "development" will be used here

not only to refer to various personal or academic **outcomes** - such as achievement, maturation or adjustment - but also to refer to those **processes** thought associated with or related to development - such as satisfaction, peer and faculty relations, architectural design, residential crowding, and so on; and,

3. To provide relatively comprehensive coverage which will encompass a much wider array of topics than has heretofore been the case; to that end, in addition to the reviews cited above, three of the central journals in the area were examined systematically, namely, the **Journal of College and University Student Housing**, the **Journal of College Student Personnel**, and the **Higher Education Abstracts** (formerly **College Student Personnel Abstracts**).

With these objectives in mind, the critical review which follows will be divided into four major sections.

On the assumption that theory is a prerequisite to the development of knowledge, and further that knowledge is useful to both researchers and practitioners, the next major section addresses the question of theory. This reviews a number of models, finding each valuable but problematic in one or more ways. I then present an alternate approach to residence life systems in the form of an ecosystemic model.

Next, I assess the extant literature from a methodological perspective. This suggests that much of the existing data be viewed with at least caution, if not overt scepticism. This is especially so when attempting to apply a generalization based on the literature to a particular institutional setting.

I follow this with the major substantive portion of this review. Here, I examine the available data in terms of the four "levels" of my ecosystemic model. Brief discussion of the findings will not only explore the implications of the data, but will also examine the relations between "levels", a form of analysis that is virtually absent from the extant literature. As the narrative unfolds, I will also identify **eight** thematic issues and tentatively advance **four** generalizations. A thematic issue is one which, overtly or covertly, crosscuts two or more (often several) substantive areas of study and serves as a focus of inquiry or debate. A generalization refers to a regularity which appears to hold across all substantive facets of the residence life literature, and are intended to be treated as hypotheses which warrant future study.

Finally, organized around thematic issues, at the end of each major section I will advance a total of **40** implications directed at residence life practitioners. A handful will set out first principles of practice; most will provide guidelines for action. Further, I will conclude by exploring **six** higher-order implications that together present a particular perspective on residence life practice. My concluding remarks will also touch on issues with respect to theory and research.

Before proceeding, a methodological note is in order. To minimize redundancy, with few exceptions, all references will only be cited once. In a number of instances, this was problematic since the studies in question were complex and covered a number of discrete issues. In such cases, placement of the reference was based on my judgment as to the central focus of the study.

## 2.0 THEORY: TOWARDS AN ECOSYSTEMIC MODEL OF RESIDENCE LIFE SYSTEMS

I suggested above that much of the literature in this area is descriptive as opposed to theoretical. This is not difficult to explain, for in many instances the research in question is conducted by practitioners for practitioners. This means that most research in the area is oriented towards utilitarian ends, namely, the discovery of data that will assist in the develop of successful policies and/or programs. I suggest that the result is a form of theoretical naivete which implicitly supports the view that data more or less speaks for itself such that good description is often seen as more or less coincident with good theory.

A moments consideration, however, is sufficient to indicate that such thinking is untenable (Benjamin, 1985). Residence life systems are so complex that there are literally an infinite array of variables that might be examined. In practice, this is never the case since neither time nor research resources are infinitely available. Consequently, all research efforts are necessarily highly selective as regards what variables will be examined and what variables will be ignored. In turn, this selection process is never arbitrary, but based on some specific set of interests and concerns. And it is through the lens of these interests and concerns that the findings will be interpreted.

In this sense, data **never** speaks for itself. Rather, its meaning necessarily derives from interpretation in the context of some set of interests and concerns - put differently, some set of guiding assumptions - that constitutes theory, however inarticulate and implicit. This is to suggest four things: first, that research and practice are theoretically impregnated activities, though they are not so conceptualized in the literature; second, that theory is indispensable to the development of a knowledge base; third, that at present theory in the residence life literature consists more of a series of practice assumptions, typically concerning individual psychology, than an articulated set of testable propositions; and, fourth, that, in consequence, the residence literature presently constitutes a database, **not** a knowledge base.

The practical consequence of the absence of a knowledge base is that policy and practice in the field will likely be highly varied and inconsistent. As a result, the outcome of practice initiatives will be unpredictable. What works in one context will fail in another, and what has worked before in one context will inexplicably fail in the same context at another time.

The solution to these practicable dilemmas is a knowledge base which provides researchers and practitioners with a common set of understandings upon which they can build with some confidence. In turn, construction of such a knowledge base requires a guiding theoretical model or framework. At present, no such model exists. There are, however, a number of theoretical perspectives which may serve as potential candidates. Below, I evaluate **five** theoretical perspectives. I then present an ecosystemic alternative, building on the work of Bronfenbrenner (1979).

## 2.1 Social Ecology

Perhaps the model best known in the residence literature is the social ecology model of Rudolph Moos (1979). In essence, this holds that environmental and personal systems interact to shape each other. In this usage, the environment is seen as encompassing virtually everything which impinges upon the individual. However, emphasis is placed on the physical (eg. the architecture), the organizational (eg. the rules), and the social (eg. the social climate) aspects of the environment. In turn, the personal system is conceptualized in terms of the psychological character of the individual student, especially their expectations, personality and coping skills.

The personal system shapes how the individual perceives the environment. However, the latter, especially in its social aspects, shapes the individual's personal system, and thus how they perceive the environment. While theoretically the model emphasizes reciprocal influence, in practice, the model focuses on the outcome of this process, namely, the perceptions students report of living in particular residential environments.

The vehicle for the model is the University Residence Environment Scale [URES] (Moos & Gerst, 1974). Developed inductively, this instrument comes in three forms (real, expected and ideal) and consists of 100 items in 10 subscales (see Figure 1). In turn, these dimensions involve three "domains": relationship (eg. involvement), personal growth (eg. independence), and system maintenance and change (eg. student influence). Widely used, its authors report internal consistency of between 0.77 and 0.88, test-retest reliability of between 0.59 and 0.74, and profile stability of 0.86 (Moos, 1979).

While the results obtained through the use of the URES may be of significant practical value, the model from which it derives is highly problematic in terms of the task at hand. This is so for three reasons.

First, the social ecology model is basically descriptive rather than explanatory. The fact that a given residence hall may be perceived by a majority of its residences as "low" in support may be of value to residence life staff. But the model provides no basis for understanding why this should be so.

Second, the model accounts for the operation of residence life systems in terms of a series of global descriptors which lack specificity. The fact that a given group rates their residence hall as "high" in intellectuality says very little about the patterns of behaviour associated with academic achievement nor does it necessarily reflect the actual level of academic achievement of residents, since the perception of respondents may be incorrect.

Finally, the model does not translate well across the different settings which collectively comprise a residence life system. At present, the model functions best when describing a discrete living unit, say a specific residence hall. It says nothing, however, about the functioning of specific roommate pairs or even friendship networks within that hall. Similarly, characterizations of an entire residence system of, say, 25 halls, as "high" in competition is relatively meaningless. This is because each of the halls which make up the system will have a unique profile in which the system descriptor is nothing more than an average which distorts as much as it reveals.

**Figure 1. Description of the URES subscales.**

| | Subscale | Description |
|---|---|---|
| | | **Relationship Dimensions** |
| 1. | Involvement | Degree of commitment to the house and residents; amount of interaction and feeling of friendship in the house. |
| 2. | Emotional Support | Extent of manifest concern for others in the house; efforts aid one another with academic and personal problems; emphasis on open and honest communication. |
| | | **Personal Growth Dimensions** |
| 3. | Independence | Degree of emphasis on freedom and self-reliance versus socially proper and conformist behaviour. |
| 4. | Traditional Social | Stress on dating, going traditional heterosexual interactions. |
| 5. | Competition | Degree to which a wide variety of activities, such as dating and grades, are cast into a competitive framework. |
| 6. | Academic Achievement | Prominence of strictly classroom and academic accomplishments and concerns. |
| 7. | Intellectuality | Emphasis on cultural, artistic and other intellectual activities, as distinguished from strictly classroom achievement. |
| | | **System Maintenance Dimensions** |
| 8. | Order & Organization | Amount of formal structure, neatness, and organization (rules, schedules, established procedures.) |
| 9. | Student Influence | Extent to which student residents formulate and enforce rules and control use of the money, selection of staff, roommates, and the like. |
| 10. | Innovation | Organizational and individual spontaneity of behaviours and ideas; number and variety of new activities. [Source: Moos (1979:29)] |

On the one hand, this assessment of the social ecology model makes clear that while it remains extremely useful for descriptive purposes, it cannot function as a general model of residence life systems. On the other hand, the preceding discussion helps set out just what characteristics such a model should have, namely: it should be (1) capable of explanation as well as description; (2) flexible, accommodating both global as well specific processes; and (3) complex, allowing for movement across phenomena having different levels of organization, from the relations between roommates, to friendship networks on a given floor, to the social dynamics within entire building complexes, to processes which characterize entire residence life systems.

### 2.2 Territoriality

A second popular model, well known in higher education (see reviews by Heilweil, 1973; Schroeder, 1978, 1980a; Spencer, 1979), concerns the notion of territoriality. Based on the work of psychologists such as Altman (1975), Sommer (1969, 1974), Mehrabian and Russell (1974), Freedman (1975), Baum and Epstein (1978), and Fisher et al. (1984), its proponents suggest that many aspects of human behaviour in groups can be explained in terms of three distinctions.

The first distinction is between density and crowding. Extensive evidence now exists which demonstrates that there is no necessary relationship between population density in any given setting and stress. Rather, density and stress are only associated under certain situations. When the two are associated, the resulting subjective state is referred to as crowding or crowding stress.

The second distinction is between personal space or territory and the space of others. This holds that each person treats a certain amount of space immediately surrounding their person as belonging to them, as their territory. So long as they have control over that territory, especially as regards control and organization over social interaction, their stress level remains low. However, as the rate of unwanted social interaction increases - that is, as they loose control over "their" territory - their stress level increases to the point where crowding stress can be said to obtain.

The third distinction is between different zones of interaction, specifically, between primary, secondary and public space. In each zone, normative expectations obtain as regards what sorts of behaviour will be seen as appropriate. Primary space corresponds to the individual's territory (eg. their residence room) and includes, among other things, intimate forms of social interaction. Secondary space is designed to be shared with a limited number of others (eg. a residence floor lounge) and thus permits close but rather more public sorts of behaviour. Public space (eg. a residence building entrance hall) is characterized by its anonymity and typically calls for rather formal behaviour shorn of intimacy or individuality. It follows that as one moves from primary to public space, the degree to which persons expect to control or organize social interaction declines.

This model is conceptually potent in explaining much of the face-to-face interaction among residents and, as we will see, is informative as regards patterns of behaviour in secondary and public spaces as well. It also has much of value to say regarding the impact, both positive and negative, of residence hall architectural design.

Despite these strengths, it remains problematic with regard to the task at hand. In terms of a concern with student development, it seems evident that much more is involved here than merely students' response to issues of crowding and territory. While crowding stress may well impact negatively on some students, as we will see, its impact is anything but uniform. Moreover, as expected, students continue to vary on a range of other dimensions, even when density and architectural issues can be shown to be benign (ie., low density, low stress). Consequently, while the model is capable of both description and explanation, it appears neither flexible enough nor complex enough to accommodate the full range of phenomena common in most residence life systems.

### 2.3 Personality

One class of developmental theory is typically referred to as "person/environment interaction" (Walsh, 1975; Upcraft, 1982). Central to this approach to development is the notion of "fit" (Huebner, 1979). On the one hand, its proponents argue that each student selects the environment which best 'fits' their needs. On the other hand, they also suggest that, as a function of goodness of 'fit', some students will perform well while others will perform less well in the academic (and residential) environment in which they find themselves.

One variant of this approach to student development may be described as personality theory. With respect to residence life, I am referring specifically to the Myers-Briggs Type Indicator (Myers 1980). This model of personality suggests that there are fundamentally four bipolar dimensions upon which individuals vary: sensing (S) vs (N) intuition; thinking (T) vs feeling (F); judgment (J) vs perception (P); and, extraversion (E) vs introversion (I). Interacting the dimensions yields a 16-fold typology. As it has been applied to residence life, the Myers-Briggs Type Indicator is used, first, to locate each in-coming student on the typology and, second, to assign roommates on the basis of homogeneity with respect to personality type.

Both the notions of fit and that of personality are problematic with regard to the task at hand. Fit is problematic because of a lack of theoretical specification. Not only is 'fit' subject to multiple, potentially competing interpretations (eg. discrepancy between expectations and reality, between personality and peer group attributes, between behaviourial patterns and physical attributes of the environment, and so on), but it is unclear at what level or levels the concept is to be applied: at the level of the dyad, the triad, the peer group, the hall floor, the hall building, the residence life system, the university campus or some combination of the above. Furthermore, the model fails to made clear whether the various attributes being referred to are fixed or dynamically interacting. In the former case, fit may be interpreted in dichotomous terms; the individuals either do or do not fit a given environment. In the latter case, fit may interpreted as a derivative outcome, as an emergent property of the interaction between the student and the environment, variously defined and described. Selection of the interpretive base is critical to the theoretical elaboration of the concept of fit, yet no clear basis for that selection now exists. It is even unclear from whose perspective 'fit' is to be defined: from the

perspective of the researchers, as in the differences between two tests, or the perspective of students, as in their subjective reports of distress or discomfort.

On these various grounds, then, the notion of fit, while an important sensitizing idea, cannot serve as the basis of a model that will help us understand residence life systems.

For different reasons, the same is true of personality theory per se. It will be apparent from the above description that the Myers-Briggs Type Indicator is only intended to operate at one level of residence life systems: as a predictor of dyadic interaction between roommates. As we will see, however, such relationships do not operate in social isolation from the larger environment within which they are necessarily embedded. In this sense, then, the value of personality theory as a predictor of roommate compatibility is an empirical matter while its utility as a general model of residence life is nil.

### 2.4 Social Psychology

Social psychology seeks to explain an extraordinarily wide range of human behaviour. One class of such phenomena includes the dynamics of small group interaction, including that of peer groups (Newcomb 1961; Newcomb et al., 1965; Berkowitz, 1975; Paulus 1980; Forsyth, 1983; Baron & Byrne, 1984), hence its relevance in the present context.

A complete account of this line of inquiry is beyond the scope of the present paper. However, several concepts stand out as especially relevant. For example, as the extent to which individuals identify with and perceive some set of others as a reference group, he or she is increasingly likely to conform with the norms or "rules" of that group. In this sense, group membership acts as a social facilitator, providing opportunities for social behaviour that otherwise might not occur. Group membership can thus positively influence the development of their members. Conversely, however, group membership can, under certain circumstances, also produce deindividualization. This is a state of mind which strips the individual of "normal" sources of inhibition, thus increasing the likelihood that they will commit antisocial acts that, under different circumstances, would be out of character. Here, we see the potential for group membership to undermine individual development.

There is little question that this theoretical approach is both explanatory and descriptive. It is also clear that the model is quite flexible insofar as it can account for a wide range of social phenomena. Its limitations are revealed, however, as regards the issue of theoretical complexity. While its proponents can explain many phenomena, the range is hardly comprehensive. It is unreasonable, for example, to explain all aspects of roommate relations in terms of their membership in some larger peer group. Similarly, group-level explanations become less and less relevant as the focus of inquiry widens to include hall buildings or even residence life systems. Thus, while social psychological concepts appear to be underutilized in this area, by themselves, they do not constitute a model of sufficient complexity to the task at hand.

## 2.5 Gender Differences

The final model to be examined concerns twin notions associated with gender. The first is that there are fundamental differences between the way in which men and women operate in the various contexts in which they live (Seward & Seward, 1980; Sherman, 1978; Maccoby, 1966; Maccoby & Jacklin, 1974; Tavris & Offir, 1977). For representative examples of the findings of this line of inquiry, see Figure 2. Perhaps the best known recent study in this area is the work of Gilligan (1982; see also Belenkey et al., 1986; Keller, 1985; Ruddick, 1982) which suggests that men and women think in fundamentally different ways, and that divergent patterns of thought lead to different sorts of knowledge about the world.

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**Figure 2. Common differences in the response patterns of men and women.**

| | |
|---|---|
| | **ABILITIES** |
| General Intelligence | No difference on most tests. |
| Verbal Ability | Females excel after age 10 or 11. |
| Quantitative Ability | Males excel from the start of adolescence. |
| Creativity | Females excel on verbal creativity tests; otherwise no difference. |
| Cognitive Style | No general difference. |
| Visual-Spatial Ability | Males excel from adolescence on. |
| Physical Abilities. | Males more muscular; males more vulnerable to illness, disease; females excel on manual dexterity tests when speed important, but findings ambiguous. |
| | **PERSONALITY CHARACTERISTICS** |
| Sociability & Love | No overall difference; at some ages, boys play in larger groups; some evidence that young men fall in love more easily, out of love with more difficulty. |
| Empathy | Conflicting evidence. |
| Emotionality | Self-reports and observations conflict. |
| Dependence | Conflicting findings; dependence probably not a unitary concept. |
| Nurturance | Little evidence available on adult male reactions to infants; issue of maternal versus paternal behaviour remains open; no overall difference in altruism. |
| Aggressiveness | Males more aggressive from preschool age on. |
| | [Source: Tavris & Offir (1977)] |

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The second notion derives from recent efforts at feminist scholarship (Goldner, 1988; Avis, 1988, in press). On the one hand, this holds that much of the social science literature is anthropocentric, mistakenly using male response patterns as the standard again which to judge and evaluate female response patterns, usually negatively. In fact, they argue, it is not that men perform better than women, but rather that the two patterns of response are fundamentally different. From this perspective, gender is seen as "an irreducible category of ... theorizing differences between men and women are not biological, but rather social, especially as a function of inequality which has traditionally placed women in positions of inferiority and subject to male domination.

Both lines of inquiry appear valuable, the first in empirical terms, the second as a sensitizing perspective. Indeed, we will see that in a variety of respects, the preferences and responses of men and women living in residence hall are systematically different. However, as a comprehensive model, notions of gender are neither flexible nor complex enough to the task at hand. While the sexes do indeed differ in some respects, they are also indistinguishable in others. Similarly, from a theoretical perspective, there is just as much reason to be interested in same-sex relations as in cross-sex relations. Furthermore, the impact of peer group relations, and of residence hall architectural design, are both independent sources of influence, despite the fact that men and women may under certain circumstances respond to them differently.

### 2.6 Ecosystemic Model

The five models reviewed above all have at least three things in common. First, each has something of value to say regarding the operation of residence life systems. Consequently, I will feel free to call upon them as needs be to clarify and elaborate upon available data.

Second, each has tended to focus attention on one or, at most, a few dimensions of human behaviour. Concomitantly, these dimensions are typically illuminating of social phenomena at only one "level" of residence systems. This lack of flexibility and complexity makes them unsuitable to serve as the basis for a comprehensive model of residence life. They also fail to provide a perspective that would be useful in organizing what is now a large, complex, diverse and often fragmented literature.

Third, each employs "the student" (singular) as their fundamental unit of analysis. Such a unit, while traditional within the development literature (Benjamin, 1986), is problematic insofar as most of the phenomena of interest within residence life systems are basically social in character. The result is that efforts are made to explain the interdependent behaviour of two or more people in interaction by means of their static characteristics.

These shared characteristics suggest, on the one hand, that the models in question constitute theoretical fragments unsuitable to the task at hand, and, on the other, that an alternative model is required. In modified form, I suggest that a model is provided by the work of Urie Bronfenbrenner (1979).

The work in question seeks to develop a theoretical model of human development, particularly emphasizing the first two decades of life. It is guided by a series of assumptions which appear extraordinarily potent in the present context. These include:

- The environment is best conceptualized as a system, that is, as a set of elements which interact in an organized (ie., non-random) manner;
- The fundamental unit of analysis is a dyad (eg. mother and child); human behaviour **always** takes place within some social context, for that is part of what makes it human; valid research must therefore adhere to the notion of **ecological validity**: human development must be seen and studied **in context**; and,
- Seen as an ecological system, all social environments may best be conceptualized as nested structures, that is, they involve more than one level, each level interacting with and interdependent upon (ie., feeding back on) every other level.

Substantively, Bronfenbrenner distinguishes between three levels: the **microsystem** encompasses events and people in immediate, face-to-face contact; the **exosystem** refers to events and people in the same context as any given dyad, but not necessarily in direct contact with them; and the **macrosystem** refers to distal events and people which impact indirectly upon human development (eg. events and people in the work place).

As a model of human development, this is both radical in relation to existing efforts while offering much theoretical promise. With regard to residence life systems, this is by far the most promising model yet, easily meeting all four of the selection criteria set out above: description, explanation, flexibility, and complexity. However, it does suffer one major weakness in the present context: it will not translate directly to residence life systems because they are qualitatively more complex than dyadic systems. The latter involve few interacting elements, with interaction necessarily restricted to localized settings at any given point in time. In contrast, residence life systems may encompass thousands of elements, with interaction spread over many different settings at the same time, and furthermore, embedded within a still larger and more complex system, the university.

Accordingly, the model's "levels" require major modification more in keeping with the structural character of residence life systems. In place of Bronfenbrenner's three levels, I will employ **four**. The **microsystem** is retained intact: it refers to face-to-face interaction between relative intimates, such as roommates. Concomitantly, it includes the residence environment in which they interact, typically, their residence room or suite. The **mesosystem** refers to an intermediate level which encompasses friendship networks, with the environmental correlate being the hall floor. The **macrosystem** refers to a higher level which encompasses discrete subsystems within a given residence life system, such as an entire residence building, irrespective of size. Finally, the **suprasystem** operates at the highest level of abstraction and refers to the relationship between the residence life system and the larger university system within which it is necessarily embedded. In accord with Bronfenbrenner, I assume some degree of interdependence or **feedback** between social processes at these various levels. Further, **interface**

processes refer to interaction and feedback between any two system "levels". As of this writing, both feedback and interface processes have largely been ignored in the residence literature. Consequently, in most cases, any comments I will make with regard to such processes should be understood not as inferences based on data, but rather as higher-level logical inferences speculating on relations that might be expected.

The ecosystemic model, like all systemic models, is characteristically free of substantive content. That is, it does not seek to explain any given phenomena, but strives to create a framework within which phenomena may be better understood. It is for this reason that I will feel free to employ substantive concepts drawn from the five models previously reviewed. Even so, it must be stressed that the review to follow will continue to leave many phenomena unexplained. This is not due to any weakness in the model. Rather, it refers to three weakness in the extant literature. The first concerns the dearth of substantive concepts available in the literature. In turn, this is explained by the second weakness, namely, the fact that much of the research in this area does not seek to explain, but only describe. The third weakness concerns extant research in residence life which is characterized by an extraordinary range and diversity of methodological flaws. On the assumption that it is better to be in a position to critically evaluate the literature than be forced to accept its findings blindly, I will briefly review these flaws. The substantive review will then follow.

## 3.0 RESIDENCE LIFE RESEARCH: A METHODOLOGICAL CRITIQUE

For convenience, research methods can be divided into four categories: sampling frame, unit of analysis, research design, and data analysis. Sampling frame refers to the manner in which respondents are recruited, the criteria employed for that purpose, and the size of the sample thus obtained. As noted above, unit of analysis refers to the definition of the "unit" within the research enterprise. Research design speaks, among other things, to the manner in which respondents are assigned to conditions, the extent the respondents are experimentally manipulated or observed in a naturalistic state, the choice of data collection methods, and the degree to which either assignment and/or manipulation yield groups which are comparable. Finally, analysis refers to the statistical procedure used to analyze the findings, specifically whether they are univariate or multivariate in character. The extant residence life research literature is problematic in virtually every one of these categories.

### 3.1 Sampling Frame

The recruitment of respondents in this literature is highly variable. While the majority of subjects participate on a voluntary basis, some are paid for their research involvement. Payment rarely involves cash; more typically, respondents are "paid" with course marks as all the students in a given course are asked to complete a questionnaire of some kind.

Recruitment can also vary in the degree to which sampling is truly random. In some cases, randomization is carried out with scientific rigor, as in the use of random number tables. In other cases, it is quasi-random, based on availability. In still other cases, sampling is decidedly non-random, based solely on self selection. In this regard, sampling is often confounded by university policy with respect to residence living. In some institutions, all residents self-select since residence living is a purely voluntary option. In other locations, residence living is either mandatory for all students or is mandatory only for freshmen. Such policies, in turn, vary by institutional size (large, intermediate, small), institutional type (private vs public, four-year vs two-year, secular vs religious, racially heterogeneous vs racially homogeneous) and geographic location.

In a similar vein, studies vary in their use of stratification procedures. In some cases, stratification is rigorously applied such that the sample in question accurately reflects the population of the residence hall or the larger residence system. In other cases, simple random sampling is used, such that subtle biases may be introduced into the sample. Sample matching is rarely employed. It should also be noted that most studies involve intra-institutional samples; cross-institutional studies, while becoming increasingly available, remain relatively rare.

As regards sampling criteria, variation is again in evidence. In some studies, sampling is homogeneous with regard to year (eg. freshman). In others, heterogeneity is the norm, with varying proportions of freshmen, sophomores, juniors and seniors permitted to enter the sample on the basis of self selection. In such instances, subsequent disaggregation is seldom employed, thus introducing a potentially important confound.

In light of the above, it is hardly surprising that sample sizes vary radically. Thus, samples vary from a few dozen respondents drawn from a single class to a few hundred thousand representing students from several hundred institutions. It is noteworthy that refusal rates vary widely, from as little as 10% to as high as 80%. In some instances, refusal rates are simply not reported or reported only in categorical terms (eg. as "low" or "about 25%")

### 3.2 Unit of Analysis

Turning to unit of analysis, irrespective of sample size, the single student remains the typical unit of analysis. Studies employing a dyadic unit of analysis do exist, but they continue to remain the exception. As I suggested above, the use of a monadic unit of analysis is theoretically problematic, although the assumptions underlying this course are typically not discussed explicitly; they are simply assumed.

### 3.3 Research Design

The first element of research design concerns the assignment of respondents to various test conditions. Variation in this regard is evident. In some cases, assignment is random. In others, assignment is quasi-random in response to existing conditions or circumstances. In still other cases, it is non-random, especially in studies in which naturally occurring conditions (eg. overassignment) prevail.

This is confounded by institutional assignment policies, as noted above. In particular, the extent to which random assignment procedures (eg. to a hall and/or room) are truly random can be called in question. Close inspection typically reveals that despite the label, assignment is often made by one or more residence life employees using their own quasi-random procedures that deviate from the truly random to varying degrees.

Corresponding variation in the degree of experimental manipulation is the rule. True residential experiments continue to be rare. Rather, quasi-experimental procedures are more common, with naturalistic studies also fairly frequent. Across this range of designs, estimates of validity and reliability are reported rarely, thus suggesting variation in the expertise of the researchers in question.

As regards data collection methods, there is overwhelming preference in the literature for quantitative methods, especially in the form of various self-report instruments. When qualitative methods have been used, these have typically been restricted to the use of interviews and, more rarely, student diaries. The use of methodological triangulation - the use of more than one method simultaneously - continue to be rare. Furthermore, the widespread reliance on institutional records, typically data from the registrar, are seldom accompanied by any recognition that such records are often unreliable and/or incomplete.

It follows that comparability in this literature is often low, both within and between samples. Within sample comparability is often compromised by the absence of any matching procedure nor any effort to control either for self-selection bias and/or for pre-entry demographic, academic or other potentially significant variables. Rather, simple random sampling is erroneously thought to obviate any other differences. This kind of muddled thinking is especially evident when heterogeneous sampling (eg. gender, year, academic performance, etc.) is employed.

The relative rarity of cross-institutional studies, and the parochial concerns of many intra-institutional studies makes for a literature in which cross-study comparability is consistently low. While quantitative methods remain the norm, similar instruments are seldom applied to comparable samples. Even more significant, comparability as a design issue is seldom even discussed. Thus, researchers from a small, Southern, baptist college, whose student population is predominantly lower class and black, may include in their literature review studies originating from large, Northwestern non-denominational universities, whose student population is typically upper-middle class and white. That the studies in question are probably not comparable is seldom explicitly acknowledged.

In a similar vein, the tendency for American researchers to cite only the research of other Americans means that issues of cross-national comparability have seldom, if ever, been explicitly addressed. Recent research by the Student-Environment Study Group[1] at the University of Guelph

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[1] *The Student-Environment Student Group (SESG), of which I am the research coordinator, operates under the auspices of the Provost. Formed in 1986, it consists of a small group (n=5) dedicated to institutional research, with a special emphasis on student experience. Unless indicated otherwise, reference to recent research at the University of Guelph will indicate the activity of the SESG.*

(Ontario, Canada), however, using (by permission) a modified version of the instrument used by Alexander Astin, reveals substantial differences between American and Canadian university students, at least with regard to specific variables. Similar differences may also be expected with regard to university students in other English-speaking nations (eg. United Kingdom, Australia) all of whom have on-going research programs in residence life.

### 3.4 Data Analysis

Finally, there are several additional sources of variation which originate with different approaches to data analysis. The most obvious concerns the preference of some researchers to employ univariate statistical procedures whereas others employ multivariate methods. Such preferences not only reflect large differences in sample size and often sampling frame, but, more importantly, differences in the complexity of the database. Authors relying on univariate procedures tend to use fewer instruments and rely less on university records. The reverse is true for those using multivariate statistics. In turn, these differences tend to reduce comparability.

In addition, differences in sampling frame tend also to reflect differences in the use of post hoc statistical controls. When heterogeneous samples are used, post hoc disaggregation and analysis can serve as one basis upon which to reduce sampling variation and/or error. Some authors employ these procedures while others fail to do so, again reducing comparability.

The upshot of this brief discussion is to highlight three points regarding research methods in the residence life research literature. First, taken as whole, it seems fair to conclude that this is not a methodologically sophisticated area of research. The various sources of confound and bias noted above are not occasional occurrences; they are typical. It follows that many of the findings reported should be viewed with considerable caution. Second, generalizations derived from this literature rest on implicit claims of methodological validity, reliability and comparability. While such claims certainly apply in specific instances, this is by no means generally true. On the contrary, cross-study comparability tends to be low, irrespective of the substantive issue in question.

Third, the residence life research literature tends to be characterized by extraordinary methodological variation. In a sense, this is ironic, since it parallels the extraordinary heterogeneity of higher education in the United States. Conversely, such diversity represents a methodological challenge which researchers in the area have, in my view, seldom met well. This is only too evident in two respects: the relative dearth of explicit discussion of methodological issues and problems in the research literature (including most extant reviews of the literature); and, the relative parochialism of most American authors, thus disregarding research into residence life systems elsewhere in the world.

In spite of these critical comments, there is much value and insight in the extant research literature concerning student development and residence life systems. Accordingly, it is to the exposition of that literature that I turn next.

## 4.0 SUBSTANTIVE REVIEW OF THE LITERATURE: AN ECOSYSTEMIC PERSPECTIVE

In accord with the ecosystemic model (see above, S2.6), the following review will be organized around the four "levels" of the model, moving from the most abstract, the suprasystem, to the least abstract, the microsystem. For purposes of clarity, each major section will be further subdivided, and each will be followed by brief discussion of salient implications for theory, research and/or practice. Further, where appropriate, additional comments will be appended as regards feedback and/or interface processes.

### 4.1 Suprasystem Level

The first "level" to be examined is that of the suprasystem. Given that residence life systems are always embedded within university systems, and since both systems serve essentially the same body of students, it is reasonable to expect that the two systems should be interdependent. That is to suggest that each system should influence the other in a variety of ways, with events and processes in one impacting in some way on students' experience of the other.

This statement of the "obvious" is necessary in the present context, for this "level" is presently empirically null. I am aware of no study which has explicitly explored the relationship between the university and the residence life system (although several studies which have done so indirectly will be cited in subsequent sections). A brief example taken from recent research at the University of Guelph will be used to illustrate the potential importance of this relationship to future research.

The example in question concerns the proportion of students who participate in the residence life system. At present, residence accommodation is primarily available to freshmen; spaces for sophomores are severely restricted. In 1986, the University accommodated 2,148 freshman, fully 65% of the freshman class. This is the highest proportion of any University in Canada. In this sense, then, the University may be described as a residential institution. Indeed, plans are presently in train that will see the University's residential capacity increased in the near future.

This information raises a number of questions concerning the contours of the suprasystem at the University of Guelph: to what extent are University and residence life policies and programs interdependent? to what extent do decisions in academic divisions impact, positively or negatively, on decisions made independently in residence life? conversely, how precisely do students' experience of the residence life system facilitate or impede their experience of and involvement with other aspects of the university system? and so on. At present, answers to these and similar questions are, at best, merely anecdotal. An informant, for example, noted that scheduling the final examination of the most difficult course on campus for the last week of the school year is associated with high levels of property damage in the residence halls. Rescheduling this examination at the beginning of the examination period would, she predicted, substantially reduce this adverse impact on the residence life system.

More importantly, this example speaks, on the one hand, to programmatic independence of academic and residence life subsystems, and, on the other hand, to a suprasystem in which they are functionally interdependent.

Thus, the ecosystemic model points to a problem within the current residence life literature, while at the same time suggesting a theoretical solution. The problem refers to the tendency for research programs to mirror the bureaucratic or administrative structure of the larger university system. With few exceptions (eg. the relationship between residence experience and academic performance; see S4.2, below), units that are administratively separate are treated as if this was also true in fact. The theoretical solution is to see such administrative structures as "real" for administrative purposes only. Our concern with the relations between systems components is just as "real" and recommends an important theoretical rule of thumb: **track the interaction between people**, not between "structures". Used as a basis for research, this systemic principle would lead residence life researchers to uncover precisely those processes suggested by the anecdote noted above. In turn, such research would, I predict, reveal a much higher degree of interdependence - and thus a much higher degree of mutual impact - within suprasystems than has heretofore been recognized.

### 4.2 Macrosystem Level

Research at the macrosystem level accounts for the majority of studies in the residence life literature. To render this body of work intelligible, it will be divided into **five** subsets concerned, respectively, with **student satisfaction, student development, social climate, hall type**, and **residence architecture.**

#### 4.2.1 Student Satisfaction

Studies of student satisfaction with life in residence have, in some combination, addressed two related issues: **the degree of student satisfaction or dissatisfaction**; and, **the bases of students' response.**

Stoner and Moss (1982), for example, surveyed 982 resident students at a large Northeastern University. They received 500 useable replies, a return rate of 51%. The findings showed that: (1) respondents were generally satisfied with their residence experience; (2) academic year was directly related to satisfaction with visitation rules but inversely related to satisfaction with housekeeping services and the performance of residence assistants (RAs); (3) females were more satisfied than males with respect to maintenance services, hall government and study facilities but less satisfied with noise levels; (4) room and suite residents were more satisfied than residents of university-maintained apartments as regards the opportunities for meeting people; (5) residents of suites were more satisfied than residents of rooms with regard to housekeeping services, hall programming, RA performance, study facilities and noise levels; and (6) the examination of similar surveys conducted in 1971, 1977 and 1981 revealed increasing student satisfaction with residence life over time (see McKaig, 1984).

A related survey, involving 720 respondents, was reported by Hadsell and Moses (1982) at West Virginia University. Based on a response rate of 40%, the authors found that most students were

satisfied with their experience, especially as regards RAs, fellow students, food services and housekeeping. This was true irrespective of hall type and whether respondents were in-state or out-of-state residents. There were, however, significant sex differences, with men more positive than women with respect to RAs and housekeeping, and the reverse true of satisfaction with respect to alcohol use.

Conroy (1982) queried 298 resident students, a 10% random sample of four residence halls, as regards their quality of life. This assessed various aspects of residence hall life in terms of "valence" (pleasingness) and "importance" (ability to improve displeasing aspects of life). The findings showed that some aspects of hall life were seen to contribute positively to the quality of life while other aspects did so negatively. The former included RAs, hall populations, and special interest living areas. The latter included transportation between campuses.

Franken et al. (1983) surveyed 660 students, 330 faculty, 130 professional staff and 78 RAs. In addition, 100 students were randomly selected and interviewed by telephone. In general, all respondents perceived the experience of living in residence as a pleasant and rewarding experience. However, compared to all other groups, resident students were more likely to: (1) see the residence hall as a place to engage in social activities, not academic work; (2) complain of the noise and lack of privacy (see Schuh & Moeser, 1974; Hossler, 1981); (3) express a positive attitude toward the use of alcohol; (4) express no particular desire to involve faculty in hall activity; (5) see the residence hall as a poor place to study; and (6) regard students themselves as responsible for the quality of hall life.

In a similar vein, Wynd (1973) used focus groups and depth interviews with 10 groups of 10-12 resident students at Eastern Washington State College. Students' responses revealed that most came from families that stressed togetherness. Consequently, residence was seen as a place to be with other people and develop a range of useful social skills. Most also complained about restrictive rules and the high level of noise. Using survey data, Wertz et al. (1977) report nearly identical findings based on 825 respondents from the University of South Carolina. The authors report a response rate of 75%. The main difference concerned gender. Whereas the majority of men saw the residence as offering the opportunity for sexual interaction and as a place to party, this was true for a much lower proportion of women.

Working out of Southern Methodist University, Hayes (1980) sent questionnaires to 1000 undergraduates ("balanced" by year and hall type), 93 faculty and 24 staff. The results were based on return rates of 60%, 67% and 61%, respectively. Freshman respondents were generally satisfied and most (86%) affirmed the desirability of all-freshman residence halls. This view received retrospective support from seniors who would not have liked living in "mixed" setting. Both freshman and seniors did not believe that all-freshman halls had any effect whatever on freshman academic performance or personal maturation, while "mixed" halls impeded friendship formation. Faculty and staff strongly opposed all-freshman halls.

Finally, two studies, by Donohue (1973) and Madson et al.(1974), explored shifts in satisfaction associated with planned changes in residence systems. In the case of Donohue, a section of the

residence system at Michigan State University changed from same-sex to coed. Respondents consisted of 67 men and 60 women before the change - response rates of 67% and 20%, respectively -and 74 men and 86 women after the change. Results indicated a sharp rise in student satisfaction and "morale" coupled with an equally sharp decline in perceived scholarship (despite no change in course grades). While the change for men and women were in the same direction, women changed much less than men. As for Madson et al., they explored the consequences of increased residential programming and the liberalization of a variety of rules at Colorado State University. Respondents consisted of a 10% random sample of residents, 525 men and women in all. Based on a response rate of 96%, the results showed significant changes on 11 of 20 questionnaire items, most indicating increased satisfaction (see Paul et al., 1984; Wilder & Kellams. 1988).

While methodologically varied, these studies do show some consistency. While undergraduate students are generally satisfied with residence life, as expected their responses become much more mixed as questions become more specific. Responses also vary by year and gender. Students typically prefer same-sex all-freshman housing while faculty and staff oppose it. Most students see the residence more as a place to meet people and develop social relationships than as a place to learn or study.

From a developmental perspective, student satisfaction was deliberately selected as the place to begin this review because it raises two thematic issues, namely, what exactly is student development and in what setting or settings is "it" most likely to occur. An educational view might be that development refers most to the acquisition of academic skills and abilities (eg. substantive knowledge; reading, writing and thinking skills; etc.). This would suggest that most development occurs in the classroom and perhaps the study hall and/or the library. An alternate view might be to differentiate between primary and secondary development, with the former centred on the acquisition of social skills (eg. interpersonal communication, intimacy, etc.). In this case, the residence hall would become the main setting within which student development occurs. Further, such a view would hold that the connection between social and academic forms of development is that social processes are central to both personal development (eg. maturation) and interpersonal relations (eg. adjustment, satisfaction) and, in turn, act to facilitate the acquisition of academic skills, not the other way around. Such a view would see residence life systems - and especially informal peer relations within such systems - not only as crucial to student development, but significantly influential with respect to other elements within the suprasystem. At this early point in the narrative, it is premature to reach any conclusions; I will return to these issues again as data accumulate.

### 4.2.2 Student Development

Studies of student development fall roughly into three categories: **on-campus (ie., resident) versus off-campus students; student adjustment and/or maturation**; and, **student academic achievement**. I describe these categories as "rough" because there is considerable overlap between studies since many in this area are complex and multifaceted. These categories have been employed nevertheless since they bring together studies which share a number of central features while at the same time limiting re-

dundancy. It should also be noted that "off-campus" can have several meanings which are seldom differentiated, including students who live on their own, with one or several roommates or with their parents.[2]

*4.2.2.1 On- Versus Off-Campus Students.* Perhaps the best known work in this area has been by Alexander Astin (1973, 1977). In the first study (1973), questionnaire data were gathered from over 25,000 freshman in 213 American universities and colleges. Follow-up data were gathered four years later (see Philips, 1976). Multivariate analysis revealed that compared to their off-campus counterparts resident students were more satisfied, more inclined to drink and smoke, were less religious, reported more self-confidence and were more likely to persist to graduation. The second study (1977), using a sample of over 200,000 students, displayed similar findings: compared to off-campus students, resident students were more satisfied, spent more time on campus, interacted more with faculty, and, controlling for several entering characteristics, were more likely (+12%) to persist to graduation.

In another well known study, Chickering (1974) gathered survey data from almost 27,000 students from 179 American universities. Multivariate analysis of these data showed that compared to off-campus students, resident students were more involved in campus activities, politically more liberal minded, spent more time on academic work, had more contact with faculty, were more satisfied with college life, showed more positive self-esteem, and were more likely to persist to graduation, and to aspire to graduate studies. Put differently, in the language of Chickering's model of student development (see Benjamin, 1986), resident students displayed more academic and social integration. On the basis of these data, the author concluded that most developmental change among resident students occurred during the first two years in university.

In related work, Pascarella (1984, 1985) reports on a large-scale study comparing off- and on-campus students. In the first (1984), survey data on a wide range of variables were gathered from over 4000 students from 74 American colleges and universities. Multivariate analysis not only replicated the previous studies reviewed above, but showed in addition that these effects were especially true among female students attending private universities. The author concluded that residence status had no significant direct effect on outcome (eg. satisfaction, academic aspiration, persistence or progress through university); rather, the influence of the residence experience was mediated through student involvement with peers and faculty.

The second study (1985) involved secondary analysis of the same data. This showed two things. First, on a range of variables, on- and off-campus students differed at the point of enrolment. The former, for example, were more likely to be female, have parents with more education, show more academic aptitude, have been more socially active in high school, attend more selective universities, and

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[2] *In 1984, 38% of undergraduate students lived at home, with their parents (Boyer, 1987). The comparable figure for the United Kingdom was 15% in 1975 (Morgan & McDowell, 1979). Such data are not available in Canada on a national basis, however, of all in-coming freshman at the University of Guelph in 1987, 10% lived with their parents.*

report lower academic expectations. Second, residence status was not directly related either to outcome or to academic integration. Rather, the influence of residence living was indirect, mediated through the way in which it structured inter-action and involvement with peers and faculty.

In addition, several studies in this area have been conducted on a much smaller scale. For example, Wilson et al. (1987) compared the personal adjustment of resident and commuter students. Subjects consisted of 115 students enroled in an undergraduate class on interpersonal relations. The results showed that resident students were (1) more trusting; (2) better adjusted, showing more initiative and overall development of ego identity (see Graff & Cooley, 1970); and (3) less likely to be "fused" to their parents (see Foster et al., 1977; Lundgren & Schwab, 1979; Stafford, 1980).

At Michigan State University, Nosow (1975) compared the survey responses of a random sample of 222 resident and 810 non-resident senior students. The comparison showed that resident students were generally more satisfied than their non-resident counterparts. Areas of satisfaction included their greater tendency to: identify with their college or department, identify with fellow students (especially among female respondents), regard their college education as rewarding, and associate it with intellectual growth, and see the university per se as responsive to their individual needs while providing them with a good education.

Tyron (1984) examined the records of 345 students who visited the counselling centre. This examination revealed that resident students were more likely than their commuter counterparts to seek help with a personal problem, although both groups were equally likely to enter into individual counselling. In addition, freshman women were overrepresented, typically in regards to examination feedback; juniors were more likely to report personal problems, while seniors typically sought career counselling.

Welty (1976), based on a sample of 92 respondents, found that resident students came to the university with a higher social class background and with a higher academic rank in high school. Their personality was more likely to be characterized as intellectual, flexible and liberal, and they were more likely to participate in extracurricular activities, make more new friends, and make more frequent contact with both faculty and the administration (see George, 1971; Schuh et al., 1981).

Davis and Caldwell (1977) compared 527 commuters from the University of Nebraska with 927 residents from the University of Michigan, for an overall response rate of 42%. All students were seniors. In contrast to studies noted above, the findings of this study favoured commuters over residents. Thus, commuter students were more likely to: identify with their college or department, report more meaningful involvement in a social group, perceive the university as intellectually stimulating (especially among men) and see the university as more responsive to their individual needs. In interpreting the results, the authors quite correctly "suggest" the possibility that the two groups may have been sufficiently different as to limit their comparability.

Finally, two studies explored the impact of special programs. Neilson (1971) examined 167 freshman from Southern Illinois University. Resident students had been exposed to a hall-based educational program compared to commuters who had no such exposure. The two groups were

compared in terms of their values. The results revealed that the two groups were somewhat different on pre-test and rather more different at post-test, such differences remaining stable through time. Post-test comparisons did not control for pre-test differences. The author concluded that resident students exposed to educational programming showed the most change in values. In contrast, Madson et al. (1976-77) compared three groups of students at Colorado State University: 131 residents who were part of the College of Forestry and Natural Resources; 404 residents not part of the program; and 116 off-campus students. The results showed that Forestry students compared to students in the other groups expressed more satisfaction with residence life, reported greater feelings of belonging, were more likely to participate in student activities, and demonstrated higher academic performance.

In general, resident students appear to benefit most from their university experience. The bases of this difference remains in question. Some evidence suggests that pre-enrolment factors may be significant, including social class background and academic aptitude. On-going involvement with parents and siblings may also be important. Perhaps most salient, residence halls appear to shape the character of interaction and involvement with peers and faculty, leaving academic performance unaffected. These effects appear especially potent during the first two years of university, with continued involvement in residence life possibly inhibiting subsequent student growth and development.

*4.2.2.2 Student Adjustment and Maturation.* The studies reviewed immediately above suggest that residential students have some developmental advantage over non-residents. This conclusion, however, can only be inferential since the studies do not have student development per se as their central focus. In contrast, the studies examined below have such a focus, concentrating on direct and indirect measures of student development as well as several of their presumed correlates.

Winston et al., (1979), for example, following Chickering (1969), developed an instrument to directly assess student development: the Student Developmental Task Inventory (SDTI-2). In 1982, Miller used the SDTI-2 to assess the relationship between residential location and development. Respondents were randomly selected from students attending a "large Southern university". The final sample consisted of 31 residential and 23 non-residential students, for a return rate of 68%. In all cases, respondents were sophomores all of whom had lived in a high rise coed residence during their freshman year; the non-residential respondents were those who had moved off-campus in their second year. The results indicated a significant relationship between place of residence and development: non-residents scored significantly higher on all but the "tolerance" subscale (see Chesin, 1969).

Wills (1974) explored development in terms of self-actualization as measured by the Personal Orientation Inventory (POI). Respondents consisted of 242 men and 238 women - a response rate of 87% and 90%, respectively - who attended a freshman course in English Composition and Personal Development at Madison College. Student living arrangements covered a wide spectrum, from living at home to living independently. Residence variation included single-sex, coed and fraternity or sorority living. Among men, there was no relationship between living arrangement and self-actualization. However, differential trends in preferred (as opposed to actual) living arrangements were noted, with

students "high" in self-actualization more inclined to prefer independent living situations characterized by low structure. Interestingly, male students who scored "low" were most satisfied with residential life, that is, living arrangement in which structure was high; the opposite was true of "low" scoring females. Further, overall, females scored "higher" in self-actualization than males. Wills found these results "confusing" and therefore difficult to interpret (see Duvall, 1969; Vreeland, 1970).

Parenthetically, these findings are consistent with an early study by Alfert (1968) in which the author suggests that student's developmental stage plays an important role in their selection of living arrangements. Residence life is typically seen as a transition between complete dependence (eg., live with parents) and complete independence (eg., living alone in the community)(see also Alfert, 1966).

In a similar vein, Scott (1975) examined self-actualization among students and RAs. Respondents consisted of a random sample of 244 students together with 26 female and 30 male RAs; all RAs were at least sophomores. The findings revealed that among both males and females, RAs and "student leaders" had significantly higher self-actualization scores than other students. Similar differences obtained between residential and off-campus students, with the former more likely than the latter to express their feelings, accept their feelings of anger or aggression, and show more inner direction.

Sauber (1972) examined the adjustment of 150 randomly selected female juniors and seniors at Florida State University. Adjustment was defined in terms of frequency and severity scores on an 11-item problem checklist. Living arrangements varied widely. Few differences were uncovered, with most respondents well adjusted in terms of the problems listed. However, residence students reported significantly fewer psychological problems than their off-campus counterparts.

Finally, two studies have explored presumed correlates of development. Levin and Clowes (1982) found that, over four years, students living in residence were more likely than those living with their parents to persist to graduation (66% vs 55%). They note as well the absence of any relationship between academic aptitude and choice of living arrangement. Ullom and Hallenback (1981) found that students who returned to residence at the University of Georgia were those who were satisfied with residence life, and who liked the low cost, good location and liberal visitation rules.

From these data, it would appear that residential arrangement is associated with student development. The exact nature of that relationship, however, is unclear given the mixed nature of the findings. In some cases, residence life appears to confer development benefits; in other cases, it is off-campus living that does so. Moreover, the findings are rendered still more complex, on the one hand, by being cross-cut by additional variations associated with year, gender and personality, and, on the other hand, by variations in sampling and testing which significantly reduce cross-study comparability.

In spite of these complications, this body of work is significant to the extent that it calls attention to three thematic issues. The first concerns the matter of **qualification** and **differentiation**. Qualification refers to the fact that virtually every trend in the residence life literature is replete with multiple exceptions. Consequently, the typical answer to any question in residence life involves some variation on "it depends". Differentiation refers to an interpretation that will become increasingly clear as the data accumulate, namely, the complexity of residence life can only be captured by analyses which

differentiate between a correspondingly complex array of dimensions. The fact that many of the studies in the residence literature are simple-minded in this sense helps explain the "mixed" character of so many of the findings.

The second issue concerns the matter of **self-selection**. Students do not enter residence life systems as blank slates, ready to be shaped and moulded by what they are to experience. Rather, they are pre-formed by their past experience and thus are just as likely to select living arrangements that accord with that experience. They are also just as likely to wish to alter their residence environment to suit their present and changing needs and wishes. It follows that to understand the impact of residence life requires careful attention to the **interaction** between those processes which antedate entry and those subsequent to entry. Failure to make such a distinction makes for bad theory and, in turn, bad research and probably bad practice.

The final issue concerns **gender**. In many respects, men and women appear to inhabit different social worlds. They come to residence life with different preferences, perspectives, attributes and activity patterns. And they react differently to what they find there, with women satisfied in some situations in which men are dissatisfied, and vice versa. While such differences are hardly universal, they do appear to be both numerous and salient. It follows that gender variations must be part of any effort to understand the operation of residence life systems, and that such differences should be reflected in both research and programming. All of these issues will be discussed in more detail later.

*4.2.2.3 Academic Performance.* The final set of studies concerned with student development per se come at it through the lens of student academic performance. Despite considerable volume,
I find this a curious literature, for nowhere does it make clear in what way living arrangement is likely to enhance or restrict student academic performance. Rather, the accent is purely descriptive. Typically, this takes the form of two questions, which in turn will serve to organize the review which follows. The first question asks simply: is there a systematic relationship between where students live and their academic performance? Here, "performance" is taken to mean course grades or more typically Grade Point Average (GPA). The second question is a more complex version of the first: under what specific circumstances is there a systematic relationship between where students live and their academic performance?

Efforts to answer the first questions have typically yielded mixed results, although the trend supports a negative relationship. **There appears to be no clear association between residential location per se and academic performance.**

In accord with this trend, studies by Baird (1969), Clodfelter et al. (1984), Dollar (1966), Eberly and Cech (1968), Kaludis and Zatkin (1966), Pemberton (1968), Prusok and Walsh (1964), Pugh and Chamberlain (1976), Quinn (1986), Stark (1965), and Willingham (1962) all report negative findings. Pascarella and Terenzini (1982) report negative findings for females, but a positive relationship between residence life and GPA for males.

At the University of Guelph, recent research (1987), based on the records of 2,148 resident freshman, showed no clear relationship between specific residence and university grades. Across the 25 residence units which constitute the system, wide variation in grades was the norm. For example, within six residence units between 31% and 40% of resident students had an average grade of "A" or "B". Conversely, within 11 units between 40% and 50% of resident students had an average grade of "D".

To pursue this further, we explored the relationship between high school and university grades for both resident and off-campus students. In general, all students got a lower mark at the end of their freshman year than they had gotten at the end of their final year in high school. However, on average, resident students lost fewer marks than their off-campus counterparts (4.7 vs 8.6), particularly those who entered with an average of "A", and a lower proportion of resident students failed (13% vs 22%).

These data would suggest that living in residence may confer some academic benefit on freshman students. A handful of studies have reported similar findings. For example, Smallwood and Klas (1973), based on a small sample, found that compared to off-campus students, resident students achieved higher "academic success" despite the absence of any pre-enrolment differences between the two groups. Kuh and Walsh (1982) reported that GPA was positively related to the number of study hours which, in turn, was related to satisfaction with study conditions in residence, especially in residence rooms. Hountras and Brandt (1970, cited in Philips, 1976) observed that residence students had significantly higher GPAs compared to students living independently or at home with parents. Similarly, Astin (1973) discovered that students living in residence as well as those living independently achieved higher GPAs than those living at home with parents (see Brand & Schrager, 1985).

That **some** students may benefit academically from residence life does not explain the basis for this effect. Hountras and Brandt (1970, cited in Philips, 1976) speculate that,

> Students residing off campus and at home are deprived of on-going stimulation present in residence halls, an interpersonal process which helps to develop the values, attitudes and academic goals which are necessary for academic success in college.

In others words, the authors suggest that the impact of residence life may be indirect. It likely does not affect academic aptitude directly; rather, it operates to channel or facilitate what ability may exist by providing motivation and direction for its use.

This leads directly to the second question: the specific circumstances under which residence life will be benign, facilitate or even impede resident student academic performance. The studies which have addressed this question have done so in one of three ways. The most frequent approach has investigated the relationship between performance and **assignment procedures**, that is, the manner in which students are grouped in residence, especially as regards **homogeneity** or **heterogeneity**. The former procedure assigns students on the basis of one or more common attributes. As Sprong (1983) notes, three classes of attributes have typically been employed for this purpose: personality type (eg. Myers-Briggs Type Indicator); commonality of curriculum (eg. academic major); and, special-needs

groups (eg. academically gifted; freshman, etc.). The latter procedure, heterogeneity, assigns students randomly.

Stewart (1980) examined the effects of homogeneous housing among honours students at the University of Maryland. Respondents consisted of 74 freshman or sophomores. Some were assigned to a special coed unit, others to a non-honours hall. The results were negative - there was no relationship between assignment among high ability students and GPA - with housing accounting for a mere 2% of the variance (see Ballou, 1985; Beal and Williams, 1968; Elton & Bate, 1966; Morishima, 1966). However, in a study using a similar design, positive findings have been reported by Kaplan et al. (1964).

Sprong (1983) conducted four studies of homogeneous housing at Indiana University. In general, "homogeneous housing was positively related to student development, especially in promoting a stronger sense of community, greater self-esteem, and more positive perceptions of the living environment." As regards academic performance, however, the results were mixed. For example, transfer students housed together had higher grades than transfer students assigned randomly (see also Richman, 1979). Conversely, no differences were found between freshmen assigned homogeneously compared to those assigned randomly. In another instance, homogeneous housing by academic major produced stress by inducing increased competition over grades.

Related findings have been reported by Cade (1979) and Chapple (1984). In Cade's study, respondents consisted of 22 students living in an all-freshman hall and involved in a special program with faculty, 14 students living in an all-freshman hall but not involved in the program, and 40 students living in "mixed" halls involving freshmen and later year students. Female students living in "mixed" halls scored significantly higher than others in terms of "impulse expression" and "seeking gratification". There was no difference between groups as regards "anxiety" or "personal integration". Similarly, Chapple, working out of Clarkson College, found that science majors housed together or close to each other were more likely to persist than those assigned at random.

Blimling and Hample (1979) undertook a two year study involving about 1,500 resident students. Roughly half the sample lived on 14 "study floors", the balance on traditional floors. Noting that high ability students tended to self-select onto these special floors, these initial differences were controlled statistically. The results revealed that "study floor" residents showed a slight but consistent increase in GPA compared to randomly assigned students. Increases were on the order of 0.15-0.20 grade points over two years, with much of the increase expected in the first year. Using a very similar design, Brown (1968) found that when floors were numerically dominated by students with a specific academic major, two things typically happened: students in the dominant group felt more positively both about their major and their fellow students, and were satisfied generally; conversely, students in the minority group were more dissatisfied about residence life and were less certain of their major or of their academic goals (see Bennett, 1974).

Schroeder and McConnell (1970) examined the effects of creating mixed-year residences. Specifically, freshman and upperclass women were housed together. The results showed that the

freshmen in question achieved higher grades than their freshman counterparts assigned to all-freshman or coed residences. Similarly, DeCoster (1966, 1968) found that high ability students performed better when assigned homogeneously rather than randomly. In addition, the average ability students living with the randomly assigned high ability students got higher grades than another group of average students living near the high ability students who were housed homogeneously (see Hebert, 1966).

Although this concern with the impact of assignment procedure represents the most common approach, another approach has examined the effect of **naturally occurring special groups**.

Clodfelter et al. (1984), for example, examined the records of 304 students at the University of North Carolina. Subjects encompassed five living arrangements, including a high rise residence and campus apartments. The results revealed systematic variation in GPA by housing type, married students highest (3.25) and apartment residents lowest (2.75). In general, off-campus students exhibited higher GPAs than their resident counterparts. The authors suggest that off-campus students tend to be older, more mature and more motivated than resident students. In a brief follow-up, Simono et al. (1984) examined the records of a total of 448 randomly selected students, with about half living on-campus, the balance off-campus. Similar results were obtained, with off-campus students achieving higher GPAs than resident students (2.83 vs 2.62) (see Jones et al., 1973; Selby & Weston, 1978).

Nasatir (1963) classified a sample of residence students as either academically or non-academically oriented. Results indicated that nonacademic students were more likely to fail than their academic counterparts. The highest failure rate was among non-academic students living in an academic residence environment.

Finally, a third approach has examined the relationship between student academic performance and **residence life policies and programs**. For example, research has shown that visitation rules and closing hours (Houtz & Norris, 1968; MacKay and Nelson, 1970; Whitney et al., 1973) were unrelated to GPA. The exception was in the work of Gifford (1974) concerned with hall administrative structure. At the University of Missouri, three structures were compared: no student government and no personal assistants; no student government but with personal assistants on every floor; and, both personal assistants and student government. Students living in the final type of arrangement had higher GPAs then those living in the other two types.

As for hall programming, May (1974) compared students living independently or with parents with 755 high-risk student residents who participated in a special opportunity program. After three semesters, program participants had higher GPAs than their off-campus counterparts. Similarly, Taylor et al. (1971) investigated the effects of an experimental tutoring program for resident freshmen at the University of Minnesota. The results showed that response to the program was related to student socioeconomic status (SES): upper SES students appeared to benefit most while low SES students appeared not to benefit at all. Using the same data, Taylor and Hanson (1971) also found that average ability students appeared to benefit most both from tutoring services as well as homogeneous housing (see Taylor, 1969; Taylor et al., 1970).

Taken together, these data support the rather obvious conclusion that some students appear to derive academic benefit from residence life while others either fail to do so or may actually be restricted by the experience. Just as obvious, the important question concerns what accounts for these various consequences? As it now stands, the data are confused and provide equal support for a range of competing explanations.

By and large, such variation can be explained as a methodological artifact. Some studies controlled for pre-enrolment differences, others did not. Some used only freshmen while others used mixed samples. In some cases, on- and off-campus respondents were all of traditional age while in others traditional age residents were compared to mature off-campus students. To complicate matters still further, in some studies residence life was mandatory, in others voluntary. In the latter instance, it is typically assumed that choice of living arrangement is based solely on student preference. This, however, may not be the case. At the University of Guelph, for example, while living in residence is voluntary, the number of spaces is invariably inadequate to the demand for them. Consequently, many undergraduate students live off-campus involuntarily. Similarly, there is a substantial waiting list for graduate student housing. Indeed, recent research suggests that a substantial minority of off-campus men, but not women, would return to residence life if space was available to accommodate them. All of this means that research into student academic performance is, and always has been, characterized by low comparability.

As for determining some basis for understanding the diverse findings reviewed above, no satisfying explanation is immediately forthcoming. Indeed, few of the researchers in this area have even attempted to tender such explanations, most content merely to describe. One thing, however, seems clear: univariate explanations are doomed. Homogeneous versus random housing, SES, academic ability, high school academic achievement, contact with faculty, administrative structure, age, maturation or adjustment, programmatic intervention (eg. tutoring), roommate relations (together with associated interpersonal skills), personality, hall ratio of one category of student to another, and gender all appear to interact in relation to academic achievement. Thus, each one of these variables constitutes a competing explanation that, taken alone, appears inadequate to the task.

What seems to be implied, therefore, is some notion of **ecological configuration**. This is a multivariate idea intended to suggest four things: first, that academic performance will always involve the confluence of some combination of the variables noted above; second, that the particular combination of variables that confer benefit on resident students - as well as those that do harm - will be contextually specific, and thus will likely generalize on a gradient of congruence or similarity; third, with the exception of efforts at programmatic intervention, academic performance will always be an **indirect** consequence of on-going processes within that context; and, fourth, that social patterns and processes will constitute the proximate processes of greatest salience, at least in relation to resident students. It is less clear at this point how best to characterize the social processes in question. Processes at all "levels" of the model have been nominated by one researcher or another, including congruent academic orientation, homogeneity with respect to a range of attributes, the **absence** of conflicting

perspectives and orientations, and so on. Data on the basis of which to select among these and alternate choices is presently lacking. However, additional information will accumulate as this review unfolds. Accordingly, contextually-specific social processes constitute yet another thematic issue to which I will shortly return.

### 4.2.3 Social Climate

Efforts to assess the social climate of residence halls have typically relied on Moos' (1979) University Residence Environment Scale (URES) (see above, Figure 1). Here, two distinctions are required in order to make sense of the studies to be reviewed below. First, in this literature use of the phrase "residence living group" has no fixed referent. It may apply to a residence system (ie., a set of halls), a single hall, a single floor or a subgroup of students within a single floor. Not surprisingly, such sampling variation dramatically reduces comparability. Second, studies under the heading "social climate" are not substantively homogeneous. Rather, they cover an array of topics. For purposes of the present review, however, six subcategories will be distinguished: **pattern, satisfaction, academic performance, stress, hall size and density,** and **other.**

*4.2.3.1 Pattern.* I use the term 'pattern' to refer to studies whose concerns have been twofold: to show that residence students perceive their hall has having a relatively unique configuration of attributes in terms of the 10 URES subscales; and, to demonstrate that variations in configuration makes a difference to the students who live under the conditions in question.

Given that the URES was created by Moos and his colleague (Moos, 1974; Moos & Gerst, 1972), it is hardly surprising that much of the early work in this area was produced by this same group of researchers (eg. Smail et al., 1974; DeYoung et al., 1974; Herans & Moos, 1976; Moos et al., 1975, 1976; Gerst & Sweetwood, 1973).

The major thrusts of this body of work may be summarized as follows: (1) different "living groups" vary tremendously in how they perceive their residence hall; (2) such variation applies as much within residence systems as it does across such systems; (3) there appears to be a predictable relationship between perceived emphasis on particular dimensions and student personal and interpersonal response (for example, halls which are perceived to stress "support" will increase both personal satisfaction and interpersonal communication; those that highlight competition will have the opposite effects); (4) same-sex residence halls will vary systematically; compared to all-male halls, all-female halls will typically be characterized by more support, intellectuality, tradition and order, and less independence or competition; coed residence halls fall somewhere between these two extremes; (5) there will usually be some discrepancy between what in-coming freshman expect and what they actually find on arrival, the nature and direction of the discrepancy a function of which of the five hall "groups" they belong to (competition, support achievement, independent, relationship, and traditional); and (6) students' perception of their residence environment is relatively stable, at least over the short term (ie., an academic "year").

Subsequent work concerned with the patterning of student perceptions of their residence hall environment has essentially elaborated on these findings.

Schroeder et al. (1980), for example, compared the perceptions of residence students homogeneously assigned by personality type. Respondents consisted of 260 male freshman - a return rate of 74% - assigned to one of five groups. Four of the groups were assigned on the basis of their dominant personality type, the fifth was randomly assigned and acted as the comparison group. The results showed that the groups differed on three of the 10 URES subscales (traditional, intellectual, student influence). Intuitives saw their hall as more traditional than that seen by feelers, and as less influential than that seen by thinkers. Intuitives also saw their hall as more intellectual than that of the comparison group, but no different than that of other personality types. Further, with the exception of thinkers, friendship patterns were closely associated with personality type, with homogeneity the rule. The authors conclude that a high proportion of students of a given personality type will tend to "create" a residence environment having distinctive characteristics.

Wencel (1985) explored the social climate of the residence halls at the University of South Carolina. In general, the halls in question were perceived by the study's 758 respondents as high in tradition and order, but low in independence, innovation and student influence. However, respondent perceptions varied by hall type. Compared to residents in same-sex halls, their coed counterparts perceived residence life to be higher in involvement, intellectuality, innovation and student influence, but lower in tradition. Conversely, female respondents living in same-sex halls were more likely than their male counterparts to perceive hall life as high in support, intellectuality, and tradition, but low in independence (see Null et al., 1982; Parker & Gade, 1981; Schroeder & Griffin, 1976; Winston et al., 1980).

Ballou (1986) examined the relationship between student perception, sex and academic year across the residence systems of 12 colleges and universities. Respondents were "mixed", with 40% of them freshman. Males living either in freshman housing or "mixed" housing characterized residence life as low in support and high in competition. Male freshmen alone reported low student influence. By contrast, female freshmen perceived residence life as high in support, low in student influence, and moderate in innovation. Females living in "mixed" housing reported high support, student influence, and innovation, but low competition. Finally, freshmen living in coed housing reported high innovation, and moderate support, influence, and competition. Further, hall type was unrelated to GPA, campus participation, frequency of drinking or use of the health centre. In all, 50% of respondents preferred mixed housing, 25% all freshman housing, and 25% had no opinion (see Ballou, 1985; Brasell & Murrell, 1982)

Finally, Brandt (1981) compared two all-male halls at Oregon State University, the first characterized as "low" change (n=71), the second as "high" change (n=89). Compared to the former, "high" change residents perceived residence life as characterized by higher involvement, influence and innovation, but with lower competition. "High" change students were also more satisfied and more

likely to persist. The findings held when the data were re-analyzed while controlling for self-selection factors among freshman respondents.

*4.2.3.2 Satisfaction.* Several studies have focused more narrowly on the relationship between student perception and satisfaction. Greene (1975), for example, did a retrospective study of 454 alumni who graduated from Frosthing State College during the period 1966-1969 or 1970-1973. Generally, the recent alumni were more satisfied than those that came before, although there were no marked differences by either hall type or gender. There was a strong relationship between satisfaction and past participation in hall programs. Respondents indicated that the long term effects of residence life included personal development and the ability to get along with people.

Null (1980a) found that respondents who characterized their residence experience as high in both involvement and support were most likely to perceive their residence hall positively. Similarly, Brandt and Chapman (1980) report that respondents who perceived high student control were most likely to say they were satisfied with their residence experience. In turn, high change residence environments were those most likely characterized as high in involvement, support, innovation and influence, but low in competition.

*4.2.3.3 Academic Performance.* At least one study has explored the relationship between social climate and student academic performance. Working out of the University of Illinois, Schrager (1986) used a sample of undergraduate men from 36 fraternity houses and 18 traditional residence halls. Fraternity respondents who characterized their residence as achievement-oriented and competitive had higher GPAs than expected in the general student population. Conversely, fraternity respondents who perceived their residence as high in social influence recorded the reverse. Hall respondents who saw their residence environment as traditional achieved lower GPAs than expected.

*4.2.3.4 Stress.* One counterpart of student satisfaction is student stress. Accordingly, several studies have investigated the relationship between social climate and student distress.

Tracey and Sherry (1984), for example, examined the discrepancy between what respondents desired and what they experienced, and stress. The authors distinguish between students who desired less of some attribute (on the URES) and those who desired more of some attribute. Stress was assessed in terms of reported anxiety and the presence of physical symptoms. The findings showed that students who wished less (eg. less competition) were likely to experience more stress than those who wished more. In turn, stress was negatively related to help seeking; the more stress, the less likely were students to seek help.

Moos et al. (1979) also used physical symptoms as a stress analogue and related it to variations of social climate. Compared to low stress respondents, high stress students perceived their residence environment as lower in support, involvement, and student influence, and higher in competition. Stress

was also related to hostile interaction, negative affect and the use of medication. Respondents initial stress scores at the beginning of the year predicted their final stress score, with neither score related to the use of the health centre. Finally, among women only, stress was inversely related to GPA; high stress compared to low stress women got lower GPAs (see Nielson & Moos, 1977; Stokols et al., 1978; Cook, 1987).

Finally, Grindeman (1984), at Oregon State University, examined the impact of social support - or its absence - on a sample of residence students. The findings showed that: (1) patterns of social support varied by hall type; (2) support was associated with the respondent's interpersonal orientation (high), their level of self-confidence (high), their sexual identity (firm), their level of adjustment (high), and their level of participation in extracurricular activity (high); and (3) social support was inversely to GPA, that is, high support was associated with a low GPA. Several of these relationships did not hold for off-campus students.

*4.2.3.5 Hall Size and Density.* In anticipation of later discussions of territoriality and residence life, at least two investigators have explored the impact of hall size on social climate. Gerst and Sweetwood (1973), for example, found that involvement, innovation and student influence was higher in small as opposed to large suites. Null (1980b) report that students living in 10-person suites were more satisfied with residence life than students living in double rooms (with or without previous suite experience).

*4.2.3.6 Other.* Finally, a handful of studies have explored some aspect of social climate but one that fits neatly into none of the above categories. Crouse (1982), for example, used "peer network therapy" to affect the way in which freshman viewed their residential environment. Such intervention produced a significant change in the way the 80 participants rated their residence environment in terms of involvement, support and intellectuality.

Working out of the University of Georgia, Ullom and Hallenbeck (1981) compared 84 students who return to on-campus living with 60 students who moved off-campus after living in residence. Compared to their off-campus counterparts, on-campus students reported more support and involvement, a more positive view of residence life, more involvement with extracurricular activities, and more of a sense of belonging.

All findings with respect to the social climate of residence halls require an important caveat: they refer to student perception whose relationship to objective reality is unknown. For example, there need be no necessary relationship between students' perception that their hall is achievement-oriented and their corresponding GPA. In this sense, the reality of residence life may simultaneously be described by several means, all different, even conflicting, yet all accurate. Examples include measures of student perceptions, attitudes, values, expectations, interpersonal behaviour, intrapersonal orientation, and objective performance (eg. GPA). It follows that extant assessments of social climate must be seen as one truth; but not the truth. Indeed, a source of truth vulnerable to many of the methodological problems noted above, especially that of low comparability.

Both within and between campus, residence environments vary widely in how they are perceived by the students who live in them. Moreover, student reports suggest that some residence environments appear to confer benefits while others are either benign or actively inimical to student development.

The factors which account for these various affects, however, are themselves diverse, with little consensus in the literature as to which are salient and which secondary, mediating or trivial. Based on the preceding review, potentially important factors include: gender, academic year, hall type, personality, "change", involvement, stress, social support, maturation or development, hall density, and situational events. Moreover, it seems clear that few operate in isolation, with stress, for example, apparently precipitated in some students by hall density.

At present, there is no obvious basis or bases for selecting among this range of factors. As important, there is a grave risk of making generalizations founded on facile stereotypes, such as "competition is bad". In some university contexts, the academic demands may be so intense (eg., medical or law school) that a highly competitive residence environment may make a positive contribution to performance. That it may do so at a price - such as low satisfaction and support - should not blind us to the likelihood that residence hall environments, like the student populations they reflect, are **always** heterogeneous, such that a **benefit-harm gradient** will typically apply, the slope of the gradient varying both within and across campuses.

In turn, this has implications for several, of the thematic issues already noted, and calls attention to a new one. The literature reviewed above makes abundantly clear that the residence environment can be enormously consequential for the students who live there; it likely affects student development - while being effected by it - whether for good or ill. Further, these data provide further support for a social perspective on student development. Student maturity, self-esteem, sexual and personal identity, and their interpersonal skill and orientation all appear to be influenced by the friends they make, the peer group of which they are a member, and, more generally, by the social climate - its intellectuality, innovation, and involvement - of their residence hall.

Social climate is, however, invariably a complex process, simultaneously involving a changing mix of variables. A case in point concerns the matter of gender. All-male halls tend to be competitive, provide comparatively little in the way of mutual emotional support and tend to encourage independence; the reverse appears true for all-female halls. Moreover, the linkage between low satisfaction, high hall density, high perceived stress and lowered GPAs holds for women but not men. Such findings provide support for the view that, in interpersonal terms, men and women operate differently. Many men, especially freshmen, appear to prefer to operate in large, loosely knit groups, with little regard for one-on-one relations, with some discomfort as regards intimacy. Conversely, many women, irrespective of their age, seem to prefer small close-knit groups, with only a few close friends, with the accent on intimacy and mutual support.

Note the preceding reference to age: the above generalization accounts for the findings, but imply a developmental caveat: what is true for freshmen may only be partly true for sophomores and is probably irrelevant to seniors. The reason is precisely the consequential character of residence life: participation in it induces changes in residents associated with movement out of the residence system to independent living. On the same grounds, it seems reasonable to expect that at least some of the gender differences observed among freshmen may well disappear or be less prominent among seniors, men and women converging with increasing age and (presumably) maturity.

On the one hand, such reasoning calls attention to the importance of a differentiated style of analysis and thinking in this area. On the other hand, it highlights a new thematic issue, namely, the influence of **historical** trends.

Just as attraction to and involvement in residence life has waxed and waned through time, there is every reason to think that the same may be true with respect to the attributes which characterize student participants. Again, gender will serve as a case in point. During the 1950s, it was generally accepted not only that men were more independent than women, but that that was the way it should be. The revolutionary ferment of the 1960s called such views in question, and marked the emergence of feminism. Economic changes in the 1970s and 1980s has seen many - though by no means all - feminist demands met. Not only has the proportion of women working
in the labour force risen precipitously - across North America, it now exceeded 50% - but, more importantly, that women should work is now generally accepted. This helps explain the fact that the proportion of women at university has also risen - at the University of Guelph, 55% of the student body was female in 1987 - but predicts that many, if not most of them, will similarly expect to work, and become financially independent in the process.

The result is to call in question the **interpretation** of the gender-related data reviewed above. Early data pointing to the greater dependence of women - and their greater tendency to perceive residences as encouraging such dependence - can probably be taken at face value. Not only did women see themselves that way, but so did university administrators in general and residence staff in particular. Recent data may well be another matter altogether. In this context, the finding that women perceive their same-sex residence halls as providing for less student influence and more mutual support than those of their male counterparts may well speak more to their preferred relational style than to any general orientation. If correct, this interpretation speaks not only to the (low) comparability of early and recent research studies, but also to the sensitivity required of modern researchers, practitioners and policy planners.

### 4.2.4 Hall Type

Studies concerned with hall type have already been noted. However, in these cases, the central interest of the author(s) was elsewhere. In the studies reviewed here, hall type is the focal concern. Such studies conveniently divide into **five** categories: **comparative, freshman, coeducational, learning and living centres** (LLC), and **married**.

*4.2.4.1 Comparative.* Several studies have compared various combinations of housing types. Montgomery et al. (1975) compared three randomly selected samples of students at a "medium sized university": 1,486 residential students at the beginning of the year; 1,358 residential students at the end of the year; and, 679 students representative of the overall student body. In this case, all freshman were required to live in residence and, in addition, three housing options were offered as regards visitation: open door, closed door, and limited visitation, with parental permission required to enter the less restrictive options. The findings showed that: (1) during the course of the year freshmen developed attitudes similar to those held by upperclassmen; (2) student satisfaction, high at the beginning of the year, had declined by years end; (3) students chose to live in residence because of existing regulations (37%), convenience (23%) and, especially for women, the desire for social interaction (23%); (4) whereas upperclassmen self-selected particular living styles, freshmen typically had this choice made for them, with the latter more than the former likely to view residence life as critical to their "social-educational" life; (5) generally, males desired less restrictive housing than females, with upperclassmen consistently preferring off-campus living arrangements; (6) freshmen males demonstrated more autonomy than their female counterparts at the beginning of the year, the difference having increased by year end; and (7) roommate compatibility was more likely among women than men.

Young et al. (1981) compared students (n=160) living in one of three housing options at Maryville College: single-sex,freshman coed or upperclassman. Data were gathered both at the beginning and the end of the year. The findings showed that: (1) women were consistently more liberal than men; (2) coed students were more liberal than others at the beginning but not at the end of the year; (3) coed students had a less sharply defined sexual identity compared to other students, and had a more liberal view of relations between the sexes.

Moos and Lee (1967) compared students from two universities (n=502) who were freshmen or seniors and who lived on- or off-campus. Compared to their off-campus counterparts, residence students were more politically conservative, more traditional, had higher GPAs and higher educational aspiration. Conversely, off-campus students perceived their living environment as more independent and intellectual. Several of the differences between groups were true of freshmen but not seniors.

*4.2.4.2 Freshman.* A small number of studies have focused especially on the experience of freshmen. Schuh and Kuh (1984), for example, working out of a "large university", compared 80 freshmen who took part in an experimental program with 90 freshmen selected at random. A significant proportion of both groups were members of a racial minority. The program was designed to encourage student-faculty interaction, with a student-faculty ratio of 1:50. Data were also gathered from 28 faculty and 50 RAs. Generally, all respondents indicated that their friends were highly influential while faculty were less so. Indeed, faculty involvement had no significant influence on academic performance, with students in the experimental recording lower GPAs than expected (see Pascarella et al., 1983). In contrast, Selby and Weston (1978) show that, compared to off-campus students, freshmen in residence had higher

GPAs and reported more satisfaction with their living arrangements (see Risman, 1982; Wilder et al., 1978).

Hayes (1980) examined the attitudes of students, faculty and staff towards all-freshman halls. Respondents consisted of a stratified random sample of 1000 undergraduates, 93 faculty and 24 staff, for a return rate of 60%. Students' attitudes clearly and consistently favoured all-freshman residences. They preferred to live in such homogeneous surroundings and refuted the notion that it might adversely affect their GPAs. They also felt that living in "mixed" housing would make it more difficult for freshmen to make friends, a view that upperclassmen shared (see Peabody & Sedlacek, 1982). Faculty and staff took precisely the opposite view, opposing all-freshman residence halls and suggesting that such an arrangement would lower student GPAs. While conceding that "mixed" housing might make friendship formation more difficult, they also suggested that insofar as not all freshmen were equally mature, such an arrangement would likely have a positive influence. Faculty views receive some support from Lozoff (1968) who showed that men living in all-male halls showed less development over time compared to those who lived elsewhere. Specifically, those in all-male (typically freshman) halls were less likely to express or accept their feelings, and more likely to attempt to control or deny them. The author suggests that living in this environment sacrificed intimacy for acceptance.

*4.2.4.3 Coeducational.* Coed living has received inordinate attention in the literature (DeCoster & Mable, 1980b). This may be explained by the fact that, in the United States, the period 1967-1978 has seen the proportion of universities offering a coed option rise from 51% to 85% (DeCoster, 1979). During the same period, the diversity of coed options has also increased, including men and women who live together in the same room or on the same floor or on different floors within the same building (DeCoster, 1979; Olmstead, 1977). In Canada, at the University of Guelph, about 90% of the residence life system is coed.

Initial assessments examined the fear that coed residences would encourage sexual promiscuity. The first formal assessment by Greenleaf (1962) at Indiana University allayed such fears. Few differences distinguished traditional and coed halls. However, among coed students, cross-sex informal friendships were more common and stereotypical attitudes towards the opposite sex less so, with students selecting this option generally more mature than their traditional hall counterparts.

These findings have since been repeatedly confirmed (see Brown et al., 1973; Corbett & Sommer, 1972; Duncan, 1974; Katz, 1974; Lance, 1976; Moos & Otto, 1975; Reid, 1974; Schroeder & LeMay, 1973; White & White, 1973; cf. Tancredi & Wagner, 1975), with coed students typically more involved, community minded, and satisfied (Allen et al., 1964; Lynch, 1972), but no more successful academically (see Linnell, 1972; Duncan & Stoner, 1976-77), than those living in traditional halls. In short, these data suggest that a number of developmental benefits accrue to those who voluntarily select a coed living option. Direct benefits tend to be social in character, including exposure to a challenging (and sometimes stressful) living environment, the opportunity for the evolution of various relationships with members of the same and the opposite sex (both platonic and/or sexual), and the

development of tolerance, flexibility and skill in interpersonal relations. Among women, this may also include greater self-confidence, independence and educational aspiration. Among men, it may lead to more realistic views of and relations with women, as well as a more mature capacity for intimacy. Indirect benefits tend to be associated with living in an intellectually and academically stimulating - even demanding - environment.

Efforts to elaborate these findings have concentrated on the influence of persons typically regarded as external to residence systems, particularly parents. Toupin and Luria (1975), for example, report that compared to white women, their black counterparts are much less likely to select the coed option, a choice supported by their parents. The authors explain this difference in terms of ethnic variation in childhood and adolescent socialization.

MacInnis et al. (1980) surveyed a sample of students, faculty, parents and members of the community around Acadia University (in Wolfville, Nova Scotia, Canada) with respect to their attitudes towards coed residential living. Generally, coed living was seen positively as regards interpersonal and sexual relations, academic performance and its relation to the campus environment. However, students were more positive than parents, with male students more positive about interpersonal relations and female students more positive about sexual relations. Overall, female students had the most positive attitudes toward the coed option.

Finally, Schuh et al. (1976-77) further differentiated between parents of undergraduate students. The sample consisted of 349 parents of students attending Arizona State University, a response rate of 87%. Compared to their Canadian counterparts encountered immediately above, these parents generally disapproved of coed living. Moreover, parents of female students were more negative than those of males, especially fathers.

*4.2.4.4 Learning and Living Centres.* As their name implies, LLCs are explicitly designed to incorporate academic features into a residential environment. This may include selecting students on the basis of some shared interest (eg. language studies), facilitating increased contact with faculty, building classroom space into the residence or easing access to particular services or facilities (eg. computers). The twin goals typical of such programs - increased academic performance and student satisfaction - have provided the foci for much of the research.

Pascarella and Terenzini (1980, 1981) have recently reported on two studies of LLCs. In the first study (1980), data were collected from a random sample of 773 students, before and one year after they entered either an LLC or a traditional hall. The results showed that compared to traditional hall students, participants in an LLC showed more personal and intellectual growth, a heightened sense of intellectual curiosity, and were more persistent to graduation. Pre-enrolment characteristics were only modestly correlated to outcome, thus minimizing the influence of self-selection bias. Conversely, outcome was strongly related to the quality rather than the frequency of interaction with faculty and especially peers. The authors concluded that different structural arrangements had little

direct affect on educational outcome; rather, their effect was indirect, mediated by on-going social relations.

In the second study (1981), the authors used a longitudinal panel design. At a "large, private university", 567 freshmen were permitted to self-select into either an experimental LLC (n=74) or a conventional residence hall (n=493). Holding pre-enrolment characteristics constant, multiple linear regression revealed that compared to residents of the conventional halls, LLC residents were more satisfied, had more contact with faculty, showed more intellectual growth, and had higher GPAs. The authors suggest that the academic outcome was most closely related to increased interaction with faculty who, say the authors, appeared to act as informal agents of student socialization (see Lacy, 1978, 1979).

Schroeder (1980c) compared 14 women prepharmacy students randomly assigned to a nine-room LLC with an equal number assigned to "mixed" housing. Pretext data revealed self-selection differences: LLC students tended to be more involved, achievement-oriented and intellectual than their "mixed" hall counterparts. Controlling for pre-enrolment differences in ACT and SAT scores, post-test comparisons showed that LLC students developed more friendships on the same floor, had higher GPAs, were more likely to pursue a major in pharmacy, and were more persistent. They were also more supportive, cooperative and satisfied, and reported less negative affect (eg. loneliness, depression)(see Schroeder & Belmonte, 1979; Schroeder & Freesh, 1977). Similar reports of increased satisfaction and a more academic orientation are available elsewhere (Magnarella, 1975; Olson, 1964; Nosow, 1975; Gordon, 1974; Dies & Sadowsky, 1974), although both Pemberton (1968) and Gordon (1974) report no difference in GPA, and DeCoster (1970) was unable to replicate an earlier which reported positive findings.

The findings of Kegan (1981) were rather less positive. Working out of Hampshire College, the author assessed an experimental college program that contained most of the features of an LLC. However, faculty participation was left voluntary with the result that little faculty involvement occurred. Relative to regular academic courses, program courses suffered in consequence. The author concludes that the program was not successful (see Centra, 1968; Grant & Dugmore, 1969, 1970).

Finally, Whitelely et al. (1982) report on an LLC expressly designed to enhance resident student moral and ego development using a curriculum intended for that purpose. Situated in Sierra Hall at the University of California (Irvine), over a four year period four sets of 150 freshmen were assigned either to the LLC, an architecturally identical hall (control group 1) or random distributed throughout the residence population (control group 2). LLC students were housed in 8-10 person suites in a two-storey building, with a large lounge on each floor. They alone took a special program in social ecology. Test battery, interview and student journal data were gathered either prior to, during or immediately following the freshman year. Additional data were gathered annually thereafter until graduation, although the authors note problems with sample attrition. The findings showed that: (1) in all student groups, principled thinking increased modestly (within the "conventional" range), initial expectations of community decreased, positive attitudes towards others decreased, and alienation, self-esteem and sex roles remained unchanged; (2) LLC students increased the most in principled thinking

and self-esteem, while control group 2 students actually decreased, with control group 1 students in the middle; (3) developmental gains among LLC students were most marked among two of four groups categorized (using cluster analysis) on the basis of personality type; (4) through time, student peer group cohesion shifted from the floor to the suite to racially or ethnically defined subgroups; (5) in retrospect, most of a subgroup of students felt that the LLC experience had had no major impact on their moral values, with significant influence attributed to boy- or girlfriends, group membership, real world experience, the curriculum (see Loxley & Whiteley, 1986) and, for a minority, drug-related experience; and (6) two aspects of the curriculum were most associated with student development: (a) structured material was most retained and (b) material which displayed a discrepancy between ideas allowed participants to disagree without losing respect for each other. In addition, Whiteley et al. note that a sense of community proved much more difficult to create among participants than they ever imagined, and that qualitative data were extremely important in apprehending the course of the Sierra project (see Wilson, 1977).

*4.2.4.5 Married.* The research literature has given rather short shrift to the experience of married students in residence (Schuh, 1985). Consequently, there are only a handful of studies available in this area.

Gottlieb (1981), for example, interviewed 60 randomly selected married students at the University of Guelph (Ontario, Canada). The study focused on patterns of social support and social participation. The results indicated that both processes were closely related: the number of helpers with respect to personal or everyday problems was positively related to all or most measures of social participation, and to the number of children. Furthermore, social support was negatively related to the strength of married student's attachment to the university. Dressel (1963) reports similar evidence to the effect that married students rely primarily on peers for support and assistance

Most recently, Whalen and Winter (1987) interviewed 115 married students at Iowa State University. The study concentrated on the relationship between social interaction and stress. Generally, the findings suggest that there is an inverse relationship between neighbour interaction and stress: the higher the frequency and the better the quality of interaction with residence neighbours - but not the number of neighbours known - the lower the experienced level of stress. In the present context, a finding of special interest was the fact that the likelihood of getting to know one or more neighbours was positively related to household density, and especially the number of children. In others words, the development of relationships among neighbourhood children led to increasing interaction among their parents: the children were ambassadors of change.

Finally, there is evidence that married students are less likely than other undergraduate students to participate in extracurricular activities on campus (Moore et al., 1972; Rogers, 1958; see Crouse & Weiss, 1984). As Gottlieb (1981) observed, this may make them more dependent than other students on peers in the residential environment for social support and assistance. Such problems notwith-

standing, Staats (1983) found that the demands of university life leave married students happier and under less stress than other undergraduates.

Collectively, these findings support a number of inferences, some elaborating on issues already familiar, others calling attention to new issues.

To begin with, it will be apparent that the choice of residence type is not without developmental consequence. Although the findings, as usual, are mixed, at least three trends receive relatively consistent support: first, coed residences confer a number of developmental benefits upon participants; second, the same appears true for participants in LLCs, while neither LLC nor coed experience is consistently related to academic performance; and, third, irrespective of freshman preferences, same-sex all-freshman halls appear contraindicated, typically impeding student development.

While clear, these trends remain problematic in terms of a number of qualifications. The limiting character of all-freshman hall, for example, appears to be more true of all-male than all-female halls. Moreover, recall from previous sections, that residence students appear to accrue developmental benefits not available to off-campus students. Such benefits presumably extend to students in traditional halls, including those of the same-sex all-freshman variety. It follows that any limits associated with the latter must be seen in relative terms: as perhaps less than the benefits associated with LLC, coed or even "mixed" housing, but still more than those associated with off-campus housing.

Even this last statement, however, is misleading, for it appears that the consequences of off-campus housing depend less on housing type as on the developmental status of the user. Developmental limitations seem to attach to those who move directly from home to independent living. Such is apparently not the case for those who, having had the residence experience, then decide to move off-campus. Indeed, through the lens of this literature, such a move may be seen as a positive index of developmental maturation; poverty excepted, to remain behind in residence is suggestive of timidity, maladjustment and developmental delay (even retrogression).

This speaks both to the character and the contexts of development. Development essentially refers to change, in this instance, primarily in terms of shifts in attitudes, values, academic orientation and social facility, rather than academic aptitude or performance. Moreover, while not dependent upon residential context, it does appear to covary with it. Initial development occurs at home, is speeded up in particular ways by residence life, and then continues in independent living. Further still, it takes place through time. Indeed, development may be so rapid at the point of entry into university than even an academic "year" may well be sufficient to observe major developmental changes.

Parenthetically, it is worth noting that the temporal aspects of change help account for yet another source of methodological variation. While most studies in this literature rely on cross-sectional designs, a few, as we have seen above, adopt a longitudinal perspective. Not surprisingly, the results are different, with, for example, students satisfied after brief exposure to residence life considerably less so a year later. As usual, the result is lowered cross-study comparability.

Returning to development, in the above subsection, data continue to accumulate concerning the social character of student development within residence environments. Once again, it is peer relations,

rather than interaction with faculty, that account for the most salient aspects of it. While the context-specific social processes of greatest importance remain unclear, group membership and group interaction appear especially valuable, including being accepted by others, having the opportunity to share thoughts and feelings with them, being exposed to divergent and various forms of thought, and having familiar patterns of thinking and relating repeatedly confronted and challenged. However, a further distinction is also required: that between same-sex and cross-sex relations. With respect to the former, mutual support, involvement, encouragement and shared communication appear especially central, especially among women. With respect to the latter, mutual discovery, debunking of facile stereotypes, and the experience of genuine intimacy and mutual affection stand out.

Finally, these data call attention to an additional thematic issue: the potential developmental influence of events, processes and persons traditionally regarded as "external" to residence life systems, especially those associated with the family.

Residence life practitioners have always known that students have families: parents, wives, children. In the extant research literature, however, such knowledge is first acknowledged and then dismissed; most researchers operate as if the only "others" of any significance to residence students are those that live or work on campus. Fragmentary evidence reviewed above suggests that, from the perspective of both theory and practice, such a view is untenable. Rather, the developmental influence of family and non-student peers appears to be both direct and indirect. With respect to the former, parental attitudes may well play a significant role in residential self-selection processes. If, as seen above, students who select a coed residence are apparently more liberal than those in traditional halls, it is not unreasonable to suspect that the same holds for their respective sets of parents. If so, then other patterns of family interaction may directly affect how, on entry into residence, such students adjust and respond to that experience as well as how they relate to peers. As for the latter, parents may indirectly influence residence students in terms of such things as a general orientation to intellectuality and academic life, self-discipline and personal responsibility as well as their moral attitude towards sexuality, alcohol and drug use, and so on. In this sense, the notion of the interface between levels of residence life systems needs to be broadened to include the interface between the residence systems and the larger community. I will have more to say about this issue in a later section.

### 4.2.5 Residence Architecture

The final facet of the residence literature at the macrosystem level concerns the impact of residence architectural design, specifically building size and density. While the literature relating territoriality, residence life and student experience is relatively voluminous, this does not apply in the

present instance. Consequently, only a handful of studies have bothered to compare high- (ie., more than five stories) and low-rise student residence halls.[1]

Sinnett et al. (1972), for example, explored the relationship between residence unit size and student activity. Respondents consisted of 235 upperclass students at Kansas State University whose living arrangements included high- or low-rise halls (homogeneous or "mixed, same-sex or coed) or off-campus apartments. In all cases, housing choice was a function of student preference. Student behaviour was assessed, among other things, by use of a self-report measure: The Activity Record. The authors found that: (1) small halls were more likely seen as friendly and intellectual; (2) large halls were more likely characterized as convenient and accessible, but noisy (see Sommer, 1969a, 1969b); (3) overall, students preferred small halls ($n < 100$) or apartments as a function of peer relations, individual treatment and comparatively low noise (see Sommer, 1968a, 1968b); and (4) student activity patterns varied significantly by hall type, with students in small as opposed to large halls reporting more social contact with others, more time in the hall, more time spent in conversation, and a greater likelihood of participation in peer groups.

Holahan and Wilcox (1978) compared students in high- and low-rise residence halls in terms of satisfaction and friendship formation. Respondents consisted of 55 men and 74 women, all freshman. Generally, the findings indicated that low- as opposed to high-rise residents were more satisfied and formed more friendships, with the latter more true of women than men. However, the findings were mediated by level of student social competence. Students low in social competence were more satisfied with high-rise living while the reverse was true of students high in competence. In turn, competence was positively related to satisfaction among men, but negatively related among women. In others words, men, who were typically less socially competent than women, were often satisfied living in a high-rise, densely populated residence since they would encounter fewer social demands there (see Hughey, 1983a).[2]

In related research, Holahan and Wilcox (1979) found that, compared to low-rise residents, their high-rise counterparts tended to perceive their environment as lower in involvement, support, organization or student influence, but higher in student independence. Similar findings have been reported by Ford (1975), especially for women. In addition, the author notes that low-rise residences tend to be less competitive, with higher support more true for freshmen than for seniors (see Moos, 1978).

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[1] *In this literature, a distinction is made between social and spatial density. Social density refers to variation in the number of people in a fixed space. Spatial density, in contrast, refers to variation in space relative to a fixed number of people.*

[2] *Heilweil (1973) notes that, despite student preference for low-rise halls, there are often good economic reasons why universities tend to prefer high-rise halls. One is a function of economies of scale. For example, the maximum efficiency of eating and kitchen facilities tends to plateau at service for 1000. Consequently, as the number of students rise, there is considerable pressure to combine small kitchen and dining areas.*

Perl (1986) sampled 92 freshmen living in two residence halls - one high-rise, the other low-rise - as regards their perception of the social climate. Expected differences between male and female respondents were disconfirmed. However, several predictions with respect to variation in hall size were supported: (1) neither set of students was able to predict in advance the social characteristics of the halls they would reside in; relative to their expectations, both halls were higher in order, tradition, competition and involvement; and (2) compared to low-rise students, high-rise residents perceived their hall as higher in support, innovation and intellectuality.

In related research, Saegert (1973) found that, compared to students in low-density halls, students in high-density halls had an impoverished mental picture of the campus (ie., their cognitive map). Further, Langer and Saegert (1977) found that informing students of the effects of crowding assisted their subsequent adjustment to residence living.

Finally, Bickman et al. (1973) explored student helping behaviour in low-, medium- (n=233) and high-rise (n=954) residences. Helping was assessed by means of the "lost letter" (returned from a different residence) and the "milk carton" (collected for needy art students) techniques. The findings showed that as density went up, helping behaviour went down; students in low-rise residences were not only most willing to help, but were also rated as most cheerful, relaxed and friendly. Stoner and Thurman (1978) suggest that the results be explained in terms of identification: "residents in a high-rise hall do not feel a sense of identity with each other and, consequently, are less willing to help each other." The result, they add, may lead to a "vicious circle in which a resident who is willing to help might not help others when those around him or her are not helpful."

These data provide a lovely illustration of the first of four generalizations that apply to the residence literature at large: **No matter how clear the trend, it will always require careful qualification.**

It is apparent that, in general, small, low-rise, low-density residences confer developmental benefits on students not available to those living in large, high-rise, high-density settings. The catch is in the phrase "in general": although the trend will typically hold, it is nevertheless mediated, even in this handful of studies, by at least four variables: gender, social competence, age and academic year.

The previous observation that male freshmen prefer same-sex living arrangements can be coupled with the additional finding that they have a similar attraction for high-density environments. One reason for such an attraction may be that many male freshmen are socially incompetent and so feel most comfortable in settings which make few social demands apart from 'being one of the boys'. The reverse appears true for women. Being more competent socially, they prefer contexts in which extensive social interaction can occur among a small group of peers. In this sense, development means different things on the basis of gender. For women, it means elaborating on existing interpersonal attributes and capacities. Seen in terms of social (as opposed to purely cognitive) processes, women are often developmentally advanced. For men, it means developing interpersonal characteristics and abilities more nearly like those already possessed by many women on entry into university!

Of course, in the face of only fragmentary data, the validity of this explanation must remain in doubt. Nevertheless, it seems plausible and clearly deserves further exploration.

Finally, as for residential density, it too must be added to the growing list of variables concerned with the relationship between residence life and student development. Parenthetically, since it is frequently left uncontrolled, density serves as yet another source of methodological variation in this research domain.

### 4.2.6 Discussion

To this point, the extraordinary complexity of residence life systems is quite apparent, and with complete coverage of data only at the macrosystem level; all trends and generalization made above will require further elaboration and qualification at the meso- and micro- levels.

This is not to counsel despair, only caution and respect. Despite the diversity of the literature, a number of important insights do emerge from the above review, albeit much like a photographer working with a flawed lens, with less sharpness and clarity than might ideally be desired. In what follows, I first address relevant theoretical insights, then turn to practice implications.

Theory. Let me begin where students begin on entry: with self-selection. On cursory overview, it is tempting to dismiss students' choice of living arrangement as merely a matter of individual preference. Closer inspections suggests not a discrete outcome, but rather a complex and often fateful process. True, this involves students' preferences, but includes as well such matters as: university policy and residence resources; on-going relations with significant others; habitual patterns of family interaction; students' attitudes and values; academic aptitude and orientation; social adjustment and developmental maturity; personality attributes and social competence; age; gender; academic aspiration; self-confidence; sexual and personal identity; and so on.

As always, these variables do not operate in isolation; they interact, such that their configuration - rather than their sheer number - appear most salient. In turn, this configuration will not only determine what residence arrangement will be selected, but will also be relevant to students' adjustment on arrival, a related process partly determined by students' response to that environment and partly a function of the extent to which they shape that environment to suite their own interactive style.

From this perspective, student development, at least within a residence context, will be primarily social in character. As important, it is not something that residence systems do directly; students do it themselves, in interaction with peers, and with faculty. As Adelman (1969: 117) put it almost 30 years ago,

> It is difficult to overestimate the importance of the interaction of undergraduates among themselves. We may flatter ourselves that we teach students things but in fact they often teach each other more than we do.

This said, residence systems do, indirectly, significantly influence student social development as a function of their capacity to facilitate or impede social relations among students, and between students and others. As with self-selection, the developmental capacity of residence systems is not a function of any single variable nor should the desire to improve a system's capacity involve a search for such

a 'magic bullet'. Rather, it will reflect a context-specific configuration which will involve a complex array of interdependent variables.

Moreover, such configurations will show tremendous variation, both within and between residence systems. Thus, the developmental impact of residence systems may be seen as a gradient, with the slope of the gradient predictive of a given system's capacity. While this language may be complex, the ideas are simple enough. In all residence systems, the developmental capacity of the system will vary across the student population: some students will receive significant developmental benefit; others will receive few or none; still others will be impeded; and a few may actually be harmed. The particular configuration of variables that confer (or fail to confer) such benefits will be context-specific.

On the one hand, this is to suggest that variation in the literature is not merely a methodological artifact; it is genuine, an accurate reflection of the diversity of residence configurations which obtain across North America. On the other hand, it suggests a second generalization: **The particular configuration most likely to confer developmental benefits on a particular body of students at a particular point in time cannot be predicted in advance; rather, it will emerge out of interaction among residents through time.**

This is reminiscent of something called the "three-body problem" in physics. When the position of two heavenly bodies - say, the earth and the moon - is known, then the position of one can accurately be predicted in relation to the other. Witness the achievements of the American and Soviet space programs over the past 40 years. But when three such bodies are involved, it is as yet impossible to predict the position of any one body in relation to the **interaction** among the other two. The same problem applies, but in vastly more complicated form, in residence systems where a wide array of variables interact simultaneously.

This means two things. First, it requires that both researchers and practitioners need to develop what I will call a differentiated style of thinking. The question is **not**, for example, whether residential density has any developmental consequences? but rather: (1) what level of social density (2) produces what specific developmental effects (3) among which students (4) in what context(s) (5) over what period of time?

Second, it suggests that housing type and assignment procedure be seen as **efforts to reduce uncertainty** by changing the slope of the developmental gradient in their particular residence system. It will now be apparent that such efforts have produced mixed results. Coed, LLC and "mixed" housing appear to increase the satisfaction, academic orientation, educational aspiration and even the persistence of the students who self-select into them. They seldom have any appreciable direct effect on academic performance, nor do most homogeneous assignment procedures do any better. The critical issue, then, is less whether these efforts have the effects they do, but rather on what bases these effects are produced. The answer involves a series of context-specific social processes many of which have been noted above. Collectively, however, these processes may be described as those which serve to

create and maintain **a shared feeling of involvement with a community of others but one characterized by some degree of diversity.**

A sense of community serves to promote and facilitate the feelings of belonging, security, support and trust that are required if developmental challenges are to be confronted with confidence rather than with threat or fear. Whiteley et al. (1982: 47) provide a very similar definition of community: "the presence of high levels of trust, cooperation, and mutual feelings of security and support among members of a community - with very low levels of alienation and hostility."[3]

What it takes to produce such a community appears to vary by gender. However, to the extent that such a community is perceived to be present, residence life will likely facilitate student development. To the extent that it is weak or, worse still, absent, the reverse will be true, with the extreme case the social isolate lost in the impersonal anonymity of an extremely large, dense, high-rise residence hall. While the potential for harm is significant here, it would likely be mitigated through attrition.

Community alone is not enough; it must be leavened with "some" diversity. Too much homogeneity is stultifying; development slows when male freshmen are lumped together. Too much diversity is terrifying; a handful of arts students housed among a sea of engineers begin to doubt their academic goals. How much difference is "some" as opposed to "a little" or "a lot" is unclear. The optimal balance of sameness and difference will likely vary on a context-specific basis. As to the character of difference, the literature includes reference to diversity based on gender, age, academic year, academic major, academic ability, social class, ethnicity, political orientation and race.

Finally, a brief speculative comment regarding the interface between supra- and macrosystem levels. As noted above, the interface between these levels is not two-sided but rather six-sided, comprised out of the interaction between two levels and the ranks of the external community. On the one hand, all residence systems are, by definition, set within a larger university system, with the latter often operating to constrain and shape the former. It is, after all, the university budget out of which residence systems are financed. Fiscal pressure may thus "push" for a high-rise residence despite the fact that it may not be the most appropriate way to serve the developmental needs of the students who will live there. Accordingly, it is important to recognize that the feedback relationship between systems at these different levels will always be **unequal**. Influence will typically flow from the university to the residence system, and not in the other direction. It thus makes sense to speak about **penetration** as the degree to which this is true. Since the interests and the substantive concerns of these two systems will in practice - if not in theory - be different, it is quite likely that residential macrosystems characterized by high penetration will be those least likely to evolve configurations which facilitate student development.

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[3] *For further discussion of the notion of "community", see Coulson (1973), Kanter (1972), Kohlberg et al. (1975a, 1975b), Rogers (1970), Sarason (1972, 1974), Sarason et al. (1971) and Scherer (1972).*

On the other hand, supra- and macrosystems are not the only systems involved. Residence students are, whether they acknowledge it or not, ambassadors of their parents, their siblings, their relatives and their non-student peers. Through students, family systems too appear to exert a significant indirect influence on the nature of student development while in residence. As we have seen with respect to married students, even their children indirectly affect their parent's social development. These sources of influence tend to be ignored in much of the current literature. It is misleading to do so, if for no other reason than that it oversimplifies the variegated complexity of residence life.

Practice. Data at the macrosystem level hold a variety of implications for practice. My discussion of them will be organized around the seven thematic issues identified to this point in the narrative.

The first thematic issue concerns the character of student development itself. Institutions of higher education across North America have been significantly influenced by student development theory, and many - including the University of Guelph - have made a commitment to reflect this perspective in institutional policy and programming. However, it is one thing to accept the idea of facilitating student development in principle, on paper, and quite another to do something about it. Let me begin, then, by setting out some first principles intended to guide such an effort.

> **Residence life staff can contribute most to student development by facilitating the interaction among student peers.**
>
> **Most developmental benefits will accrue when peer interaction has particular characteristics.**
>
> **These characteristics will vary as a function of the size of the peer group in question.**
>
> **When speaking about groups larger than dyads, developmental benefits will be associated with peer relations which promote a feeling of community, including feelings of trust, membership, safety, and acceptance.**

These implications are intended to accent the systemic character of residence life systems. Students grow and develop in social interaction with peers, not as a function of explicit efforts by staff to create development. It follows that staff efforts to encourage development will have their greatest effects if they are indirect, aimed at shaping peer interaction rather than changing each individual student member.

> **Given that student characteristics vary widely, the peer group communities to which they may wish to become attached should display similar variety.**
>
> **Such communities should promote both academic and social objectives.**

The desire to influence peer relations does not, of course, indicate either the direction such influence should take nor how to create these shaping effects. The above implications begin to speak to both these issues. The first implication addresses these issues from two directions. One concerns the mix of students who enter residence halls, and suggests that specific efforts be made to recruit

sufficient numbers of students having a range of characteristics so that the raw material for community formation exists. Gender, age, racial and ethnic origin, language, culture, and so on, all appear important bases upon which groups form. Distribution of a small number of students from a particular ethnic group, for example, across 10 residence halls undermines opportunities for group formation; rather, they should all be placed in the same hall.

Similarly, the evolution of communities will vary as a function not only of hall size, but also of size and distribution of floors and even lounges. Systematic variation of student populations across these different contexts will thus contribute to the formation of different and overlapping communities, some confined to a small group centred on a particular lounge, others more diffusely organized around the identity of a particular floor, and still others characteristic of an entire hall.

Moreover, while the primary focus of such shaping efforts is to encourage social participation, involvement and a sense of belonging, academic goals should also be part of this effort. Again, selection and/or recruitment efforts can be relevant. Students who share some academic interest(s) or who have comparable academic aptitudes may be more successful in creating an academic atmosphere than students widely disparate on these attributes. But this cannot and should not be the sole prerogative of residence staff alone; academic departments also have a vested interest in the academic orientation of their students. This suggests the value of liaison between residence life and faculty in the development of convergent goals and complementary programs.

These comments assume not only that the developmental benefits of residence will be primarily social, but that the residence itself is the primary locus of such development. This touches on the second thematic issue - the locus of development -and suggests, as a first principle, that:

> **Residence life staff have more responsibility than any other group on campus to facilitate student social development.**

This implication is intended to suggest two things: that residence staff take a developmental approach very seriously, and that this should be reflected in the training they receive. This applies as much to area directors and hall administrators as it does to residence assistants (RAs). From this perspective, RAs not only need a basic grounding in student development, but must also acquire sophisticated skills as participant observers, for the data the other staff will need to create policy will come from them. Hall administrators and area directors will need additional training so that they can interpret the data as it comes in and then translate that information (as required) into shifts in policy and programming. A key element here is a grounding in systems theory which, as this monograph demonstrates, offers a number of potent conceptual tools for the interpretation of data at various levels of residence systems. In turn, this suggests the need for a policy-making procedure which is sensitive to on-going feedback - and so changes in response to it - rather than a traditional approach in which policy and programming, once created, are pretty much fixed, at least for the duration of the academic year, if not longer.

A related implication can be stated as follows:

**Efforts to facilitate student development must be proactive rather than reactive.**

Again, this suggests several things. First, this underlines the need for a systematic relationship between student developmental concerns and on-going policy and programming; staff efforts should be **intentional**, not incidental. Second, it suggests that the institution in general, and the residence system in particular, cannot initiate such intentional efforts without first clarifying for themselves precisely what goals and objectives they are trying to achieve. If, for example, the development of student communities is a developmental goal, then each policy and program should be evaluated with this goal in mind; those policies which fail to make a meaningful contribution should be abandoned. Finally, this implication calls attention to the extent to which residence policies and programs can and should be **intrusive**. While departments of physics, for example, have no difficulty setting curricula for their students, residence systems have traditionally been much less willing to impose policies and programs, at least since the demise of in loco parentis. The perspective being advanced here suggests that such tentativeness is inconsistent with a developmental perspective and may well inadvertently impede the development of some students. Rather, to the extent that residence life staff need to become developmental 'experts', their judgment as to what students do and do not require may need to be applied in an intrusive manner. The guiding rule of thumb here can be stated as follows: **students' ideas of what is desirable in residence life may predominate only to the extent that they do not specifically interfere with staff objectives concerning student development.**

In a sense, this view calls in question just what it is that residence life systems are supposed to do and be. As I interpret the developmental perspective, this would see such systems much more closely allied with the developmental goals of the university and much less associated with the view that residence life should constitute a haven from the university.

I have already alluded above to the third thematic issue, that of self-selection: the bases and procedures whereby particular students enter the residence life system in general, and the manner in which they find their way to a specific hall and a specific floor in particular. Here, the following will serve as a guiding first principle:

> **There are two ways in which student self-selection can be used to promote student development: naturally occurring and institutionally initiated.**

Selection can occur naturally under two conditions: when residence life is voluntary and those who choose to enter can select where they wish to live; alternately, when residence life is mandatory and the allocation of students is unintentional, such that hall character will emerge out of student interaction. This implication is intended to suggest that **both** processes be seen as opportunities to facilitate student development.

How this might come about is suggested by the following:

**The processes which emerge out of natural selection must be carefully monitored.**

**Residence units can be created with particular sorts of students in mind. Such students can then be specifically recruited.**

**Given the emergent character of group processes, careful monitoring will still be required, even when selection is institutionally initiated.**

**All forms of self selection are not equally acceptable.**

**Intervention must be based on information collected for that purpose.**

The developmental consequences of naturally occurring self selection are difficult to predict. They may, with little or no assistance from staff, create a developmentally optimal living environment. Alternately, they may do the opposite. Given such unpredictability, the first responsibility of residence staff is to create a mechanism so that the evolution of group processes be carefully and thoroughly monitored. The role of RAs in the collection of such information is seen here as central. In turn, this suggests that RA training be constructed with this in mind. Further, it suggests a move away from traditional training methods centred on the individual student to one more sensitive to tracking group processes, especially the evolution of organized patterns of interaction. The model for such training can be found in the family therapy literature.

As for the creation of special residence units - for example, LLCs - this has something to say about **both** goal clarification and liaison. A special unit implies special goals and objectives, particularly those oriented to student development. In turn, such goals must be explicit (preferably in writing) and there must be unanimity among staff as regards the meaning and intention(s) of such goals. This said, however, student recruiting is not within the normal purview of residence life departments; rather, this task is normally associated with admissions. This suggests that it is in the interests of **both** departments to develop a close working relationship so that any recruiting materials sent to students accurately and meaningfully reflect both the goals of the university as well as those of residence staff. Since relations between admissions and residence life is not now known for such closeness, this would require a major change in thinking by the staffs of both departments.

However, even should this occur and the students arrive, it cannot be assumed a priori either that entering students necessarily have the required attributes or that group dynamics will not create additional complications with which residence staff must subsequently attend. Again, the initial response implied here is that of careful monitoring. The information thus collected would not only be used to identify emerging trends with respect to group processes, but also to establish a feedback relationship between unit dynamics and staff programming. I will have more to say about residence programming following review of data at the mesosystem level. For the moment, suffice it to say that it appears desirable that such programming be designed to suit the developmental needs of specific groups of students. This suggests that programs intended to facilitate development, for example, among groups that value intellectual pursuits will need to be different from those intended for groups which accent social participation.

Much of the above may give the misleading impression that residence staff is obliged to use whatever dynamics group processes make available to them. Not so, at least to the extent that such processes yield living environments which, by **staff standards**, are thought to impede student development. Such processes may either be contraindicated or simply intolerable. The patterns of interaction which typically evolve in all-male, all-freshman halls provide an example of the former. Halls in which various forms of deviant behaviour are accepted (eg., alcohol and/or drug **abuse**) offer an example of the latter.

However, even in such admittedly extreme cases, required intervention should still be based on systematic information and **not** on general impressions or past precedents. In particular, the perspective being advanced here would suggest a shift in emphasis from individual behaviour to group processes. The former approach derives both from a traditional emphasis on development of the individual student as well as a legal tradition rooted in English common law emphasizing individual culpability. The latter approach while it acknowledges individual responsibility for specific acts, tends to see such individual behaviour as indicative of underlying group processes rather than individual pathology. It emphasizes too that punishment or even debarment may have little or no impact on the group processes upon which the behaviour was grounded. Such a perspective will require a shift in the way residence staff collect information, understand it and act upon it.

Such a view is extended when considering the fourth thematic issue: the context-specific character of patterns of behaviour of resident students. Here, two guiding first principles may be stated as follows:

> **Effective intervention aimed at facilitating student development requires that residential staff be confident regarding their intentions and powerful regarding their methods.**
>
> **Both confidence and power ultimately derive from staff control over detailed information concerning those context-specific patterns of student behaviour which obtain within specific residence halls.**

I am using the notion of 'intervention' in a broad sense, to include all methods staff have available to them whose aim is to affect the behaviour of student residents. In using these methods, staff must have reasonable confidence that they have selected the appropriate method relative to any given problem or issue, and, moreover, that the knowledge upon which this selection was made is of sufficient power to be effective in developmental terms. Both attributes, I suggest, depend essentially on the depth, detail and dependability of the information available to staff concerning those processes which they wish to alter. In their absence, such efforts may be at considerable risk of producing unanticipated consequences, often negative ones.

From this fundamental position flow a number of implications:

> **Students should be seen as primary allies.**

**Central information concerns the patterns of behaviour which characterize particular groups of students within particular contexts, with such patterns evaluated against developmental standards.**

**Patterns which support student development should either be left to evolve or be actively encouraged.**

**Patterns which impede student development should either be inhibited from further elaboration or actively disrupted.**

**Relevant information concerning student patterns of behaviour is distributed across the university system, such that liaison efforts offer significant benefits with respect to information acquisition.**

Traditional practices among residence life staff are often centred on behaviour management and control. From this perspective, it may appear that the students are the enemy. Such a view, while easy to understand, is likely to be inimical to student development. This is so precisely because it fails to take account of the fact that individual behaviour typically arises out of group processes. That being so, no one has more information about such processes than students themselves. Accordingly, students should be seen as allies whose help is essential if staff are to achieve desired developmental goals.

This is to suggest a radical shift in thinking. From a systemic perspective, residence life are constituted not only out of relations among students, but also out of relations between students and staff as well as relations among staff members. Staff members - and the processes which characterize their mutual relations - are part of that system. It follows that information about residence macrosystems must come from **all** participants, since all gain from their developmental operation. Such a perspective must be incorporated in the way students and staff relate to each other, with both groups as involved as possible in shaping the living environment so that it facilitates student development.

Given that development will be most likely to occur within the context of student peer groups, critical information concerns the patterns of interaction which characterize such groups, and especially the extent to which such patterns promote or impede development. While students themselves will provide the richest information concerning such patterns, it is important to note that such processes often operate outside the awareness of the participants. What is opaque to participants, however, may be only too apparent to RAs trained to observe and identify such patterns. With such information in hand, suitably trained hall administrators and area directors may then decide that some sort of intervention is required.

In this context, the distinction between patterns which promote or impede development requires clarification. At the risk of oversimplification, patterns which promote development are those consistent with the twin notions of **community** and **challenge**. The former include patterns of behaviour which encourage communication, mutual trust, individual responsibility, interpersonal intimacy, self-disclosure, and so on. The latter are those which promote change, including patterns which challenge existing values, beliefs, stereotypes, attitudes, meaning systems, ways of expressing feelings, and methods of solving problems. It will be apparent that some processes associated with challenge may, at least in the

short term, increase levels of tension and conflict; they will be functional so long as such tension is used to promote change in which all parties perceive having gained something from the process. The converse, patterns which impede development, are those which encourage interpersonal isolation, support beliefs which undermine tolerance and flexibility (eg., homophobia, racism), and promote and even normalize deviant conduct (eg., courtship violence, property damage).

When dealing with patterns which encourage development, two responses are salient. When the evolution of the group(s) in question seems to be in an appropriate direction, they may be left alone and their progress simply monitored. Alternately, their development may be encouraged, for example, by creating contexts (eg., lounge areas, social activities) where groups at different phases of appropriate development can meet and exchange ideas and experiences.

When dealing with patterns which impede development, again two responses seem appropriate. Such groups may be encouraged to change, perhaps by the same method noted above, by creating contexts conducive to the interaction between groups whose development appears headed in quite different directions. Alternately, direct action may be required. While action against specific individuals remains a clear option (eg., debarment), intervention aimed at changing the direction of group interaction patterns may, in the long run, better serve the goals of student development. This is especially likely when the behaviour in question is not extremely deviant. Suitably adapted, methods drawn from family mediation (Irving & Benjmain, 1987), family therapy (Benjamin, 1988) or group therapy may be fruitfully employed.

Moreover, patterns which emerge in residence may generalize to other facets of the campus, since both subsystems are populated by essentially the same students. Having such information provides a clearer basis for intervention than data localized to a given hall. It follows that considerable benefits may accrue from liaison with other university divisions, especially those concerned with academic achievement and student services. I mean this to involve more than merely the exchange of memoranda, but rather mutual involvement in policy-making and programming groups and committees. Such involvement essentially recognizes that the university is constituted through interaction among interdependent subsystems in which constituent elements regularly affect each other, whether they explicitly recognize it or not. Given such interdependence, it makes sense to plan and act accordingly; to do otherwise is to significantly increase the likelihood of adverse unanticipated consequences of unmindful action.

This approach to thinking, planning and action recommends the fifth thematic issue which I have dubbed a 'differentiated' thinking style. Here, the obvious first principle may be stated as follows:

> **Mindful action requires information that is not only pattern specific, but also context specific.**

Not only does such a perspective once again emphasize the importance of information, but it seeks to indicate that such information must be of a particular character. That is, it must be specific, not only as regards patterns of developmentally relevant behaviour, but also as regards the specific

context(s) of their occurrence. My use of the notion of 'context' is intended to be understood in two senses: geographic and cognitive. For example, the behaviour of a particular group may be localized around a specific location, a room, suite, lounge, floor, and so on. It may also involve a particular flow of activity, for example, in terms of the hours of the day, movement from one location to another or the size and density of the living arrangement. This information may be critical to the creation of appropriate interventions (more about this later). However, such patterns may also reflect particular cognitive or meaning systems, for example, as might be associated with a particular religion, culture, subculture or socioethnic group. This too may provide important clues concerning how best to respond. The salience of such information may be captured best in the following:

> **Information regarding the organization, flow, location and meaning of behaviourial patterns is central to developmentally sensitive planning and programming.**

There is, however, a different sense in which the notion of context applies to residence systems. This refers to the sixth thematic issue, that of time, specifically historical time. Its importance is represented in the following first principles:

> **Residence life systems tend to be influenced most by short term events and processes.**
>
> **Short term patterns, however, are always embedded within historical time.**

Residence life policy and programming is naturally pragmatic since staff must respond to a constantly changing swirl of events and processes in the immediate present. In turn, this means that residence staff tend to be action oriented, with time for thoughtful reflection often seen as a luxury they are unable to afford.

Over the short term, such pragmatism is a sensible response to immediate demands for action. But, like politicians whose policies only extend to the limit of their mandate, this approach can have disastrous consequences over the long term. This is so insofar as the immediate patterns with which residence staff routinely contend are, in part, reflections of longer term trends. By focusing exclusively on the former, the latter may escape notice, thus slowly but progressively rendering residence policy and programming obsolete. Shifts over the past 30 years or more in adolescent sexuality, the position of women in society, the impact of information technology, and the like, all offer illuminating cases in point.

This said, this is not to suggest that residence staff suddenly need to acquire the expertise of specialists in various branches of the social sciences. However, they are in a unique position, since the university is one of the few places in society in which such expertise exists in abundance. This implies that:

> **Liaison with relevant academic departments is essential in order that residence staff have access to information regarding long term trends relevant to student development.**

Finally, the seventh thematic issue concerns the developmental impact of gender differences. Here, two guiding first principles may be stated as follows:

> **In many ways, men and women experience the world differently. In turn, they make different demands on residence life systems.**
>
> **Gender differences are relative, not absolute; there will always be men and women that deviate to varying degrees from the norms of their gender.**

Pervasive evidence that men and women differ in their experience of residence life systems suggests that sensitivity to such differences become a standard part of the training of all residence life staff. It suggests too that such differences be reflected in policy and programming directed at enhancing student development. Precisely what such differences might entail will be addressed in a later section.

However, there is a danger that such differences will be incorrectly seen in absolute terms. This is **not** what the data indicates. Rather, while gender differences appear as clear trends, they are just that: **trends**. For example, while the majority of freshman males may be less competent socially than their female counterparts, a minority of males will be as or even more competent.

On the one hand, this calls attention to the effects of self selection processes, as men and women choose to enter particular residences precisely because they are perceived to meet their social needs. On the other hand, it suggests that residence life systems must build in sufficient flexibility as to accommodate the diversity of student residents, including those who may deviate from prevailing gender-based norms.

### 4.3 Mesosystem Level

If the macrosystem operationally refers to the hall building, the mesosystem corresponds to the hall floor. The two systems differ too with respect to the amount of attention given them in the literature: where the macrosystem is heavy with data, the mesosystem is comparatively light.

Irrespective of these differences, exploration of student experience at the mesosystem levels offers a number of important insights into residence life. In the review which follows, relevant studies will be divided into **four** categories: **residence programming; peer group relations; resident assistants** (RAs); and, **hall architecture.**

#### 4.3.1 Floor Programming

Studies of floor programming fall rather neatly into **three** groups: **existing programs; effects of programming;** and, **programming deficits.**

*4.3.1.1* ***Programs.*** Published accounts demonstrate such an extraordinary diversity of floor programs that their comprehensive review is beyond the purview of the present work. However, illustrative examples will perhaps provide some sense of their range. Thus, programs are or have been put in place concerned with: sex role exploration (Buckner, 1981); multicultural training (Grubbs, 1985); family

studies (Schuh, 1985); faculty involvement (Day, 1985); roommate relations (Koenigsberg & Susman, 1985); student wellness (Warner, 1985); learning and living (Leean & Miller, 1981); and, student development (Evans et al., 1982).

With few exceptions, the reports listed above are purely descriptive. The exceptions are the studies by Evans et al. (1982) and Buckner (1981) in which explicit evaluation efforts were reported. Evans et al. assessed student satisfaction with and attendance at a series of nine hall workshops. Both attendance and satisfaction were high. Buckner used self-report measures to assess changes in participants sex role behaviour and attitudes. Comparison of pre-post measures revealed that most of the 45 participants found the class helpful, with 61% reporting a change in sex role behaviour. There was little change in sex role attitudes.

*4.3.1.2 Programming Effects.* While residence life programs may be designed with a diverse array of objectives in mind, they all have at least one thing in common: they are all intended to induce some change in the students who participate in them. A number of studies have sought to assess their effectiveness in this respect.

Wills (1976), for example, evaluated the effect of six lifestyle options at Madison College. All options involved some variation on visitation and alcohol use rules (see Kozicki, 1982). Respondents (n=392) represented a 10% random sample of the resident population. The findings showed that the choice of option was determined primarily by hall location and the desire to be close to friends. Variation was also apparent as regards gender and year. Men and upperclassmen preferred less restrictive styles than women and freshmen. In a similar vein, DeCoster (1979b) found no relationship between visitation policy and student GPA among men. Among women, however, students in halls with closed visitation rules had higher GPAs than those in less restrictive halls.

Golden and Smith (1983) report on the impact of creating "academic units" at Indiana University. The experiment involved 141 women divided between academic and non-academic units. Assessed used the URES, compared to students in non-academic units, their academic counterparts saw their environment as less traditional and more supportive, involving, intellectual and competitive (see McKelfresh, 1980; Montgomery et al., 1975).

Hossler (1981) reports on a survey of 40 colleges and universities in California - a response rate of 45% - regarding hall programs aimed at student retention. A quarter of the respondents had such programming while 40% were in the planning process. Such programming typically involved some combination of personal counselling, hall activity, academic advising, freshman orientation and career guidance. Most also used hall staff to identify potential dropouts. The most important reasons for attrition with respect to residence experience included excessive noise, inability to study, and restrictive hall policies and procedures.

Several studies have sought either to describe students guilty of misconduct or evaluate the effect of living in halls with divergent judicial policies. Janosik et al. (1985, 1986) conducted a six-year study of student misconduct, especially as regards repeat offenders. This showed that those guilty of

first-time misconduct tended overwhelmingly to be male, young, and in first or second year. Such behaviour was unrelated to place of residence or GPA. The profile was rather different for repeat offenders who tended to live in large residence halls (population > 600) and who had lower than average GPAs (see Hughey, 1983, 1985; Warzecha et al., 1985).

Following Cohen (1968), Bowles (1982) sought to characterize residence students who had been involved in one or more incidents of vandalism at the University of Tennessee. Such students were typically male freshmen who were satisfied with hall life, had problems with alcohol consumption, and, at the time of the incident, had interpersonal problems, usually in their relationship with a girlfriend. The act itself was usually spontaneous and unplanned.

Triplet et al. (1985) assessed students' perception of the fairness of judicial policies. To this end, a total of 93 freshman were assigned either to one of two experimental (social contract; external authority) or to a control hall. In the experimental groups, either students or hall directors established the rules. In the control situation, the rules were established and enforced by hall staff. At post-test, the findings showed that respondents in the control condition were more accepting of rule-violating behaviour than those in experimental condition.

Finally, Moreland and Ruback (1982) examined students' perceptions of the fairness of a hall lottery system at the University of Pittsburgh. Respondents involved a random selection of 500 students about half of whom were polled before and half after the lottery to determine who would be allowed into residence. Prior to the lottery, the general view was negative, that the system was unfair and should be changed. This remained the dominant view after the lottery, although women were more positive than men.

*4.3.1.3 Areas of Deficit.* Finally, several student groups receive relatively little attention in the residence life literature. I have commented in this vein, above, with regard to married students. Kristoferson (1978) makes virtually identical comments with regard to handicapped students in residence. He adds that such students have special problems with regard to peer relations, information needs, and roommate relations. He concludes that efforts to meet these needs will require a combination of major and minor structural changes in the way student residences are designed.

Data with respect to programming yield a decidedly mixed picture. Apart from their diversity, there is no clear consensus on whether or not such programs are effective or even what "effective" means in this context.

In part, such variation in the findings likely reflects similar variation in the methods used. Program reports seldom provide much in the way of contextual information, leaving sampling variation as a serious problem. Also, each report is entirely idiosyncratic in the sense that each university tries to reconstruct the wheel in their own image: there are no reports of program replication of which I am aware. Consequently, the comparability of such reports is likely very low. The reliance on self-report measures may also be problematic, as student perception of their behaviour and third-party observation of that behaviour may yield very different pictures of change.

Even so, gender differences once again emerge as a significant trend. Even when dissatisfied, women seem to deal with problems in a manner quite different from men. Perhaps as a result of their higher social competence, women tend to work through their problems either on their own or with the help of others. Men show a greater propensity to externalize, an unknown but probably small proportion of them to the point of active misconduct. Furthermore, such differences appear to have specific academic consequences. Whereas dissatisfaction among men may be exacerbated by low GPAs, among women variation in GPA may be a response to dissatisfaction. More generally, this may speak to divergent sensitivities to the effects of stress. Women appear more vulnerable to stress-related effects than men, but deal with such effects in a more mature manner, at least among freshmen.

### 4.3.2 Peer Group Relations

Much of the data reviewed to date suggest that peer group relations in residence are inordinately potent sources of developmental influence. Thorough discussion of this important issue extends well beyond the confines of the present paper, so much so that it will be the topic of a future monograph in this series (see Volume 5). In the present context, it will suffice to review a representative sample of studies that have inquired into the basis of that influence and have some bearing on residence life.

Null (1981), for example, collected questionnaire and interview data from a sample of 693 resident students living in suites at Purdue University. The findings showed that: (1) friendship patterns varied as a function of propinquity: the closer together they lived, they greater their frequency of informal contact and the more likely they would form a friendship (see Boyer, 1965; Menne & Sinnett, 1971; Priest & Sawyer, 1967); (2) perception of the social climate varied as a function of social relations, including ease of making friendships, frequency of informal contact, shared information, the availability of people to talk to and the feeling of belonging to a group; (3) perception of the academic climate varied as a function of its perceived friendliness and support, and its suitability as a place to study (more than 80% of respondents studied in their suite); and (4) there was no relationship between perception of the social and academic climate and GPA (see Kamens, 1978).

Marion and Stafford (1980) examined the relationship between attitudes towards foreign students and residence proximity to them. Respondents consisted of 257 residence students who either lived near or roomed with a foreign student and 251 students who lived some distance from foreign students. Conducted at North Carolina State University, the response rate was 60% and 69%, respectively. In addition, a follow-up involved 139 students. The findings showed that while attitudes did not vary as a function of proximity, behaviour did. The greater the proximity, the more likely the rate of interaction, and, in turn, of mutual activities. The findings held on follow-up for roommates only.

Stenrud (1986) interviewed 20 students in the same psychology course at the State University of New York, a response rate of 60%. The data revealed that friendship patterns were largely determined as a function of similarity of student roles, residential proximity and the frequency of

informal contact. In addition, the data suggested that the university functions like a "total institution", offering students few opportunities to sustain relationships with same-age peers off-campus.

Perl (1982) explored the formation of social networks among freshman living in two high-rise residences at the University of Maryland. Respondents consisted of 58 women and 34 men living on the top five floors, with data collected on entry and at 12 weeks. The findings showed that: (1) the size of the network was best predicted by student's satisfaction with the quality of the hall experience; (2) the shape of the network, its "multidimensionality" was best predicted by gender; and (3) the density of the network, its "reciprocity", was best predicted by a combination of gender and exploration preference. Generally, those characterized by a "high" as opposed to a "low" exploration preference were more likely to prefer dense, reciprocal, and multidimensional networks. They were also more likely to be involved in network organized activities, more willing to use a greater number of support resources, and were more likely to perceive the residence environment as high in support, intellectuality, innovation and involvement.

Hays (1985) explored the temporal course of friendship among 84 freshman psychology students, testing them in the Fall, in the Spring and again (n=52) at three month follow-up. The findings suggest a typical developmental course of friendship, with divergent paths among those that continue as opposed to those that do not. The typical developmental course initially involved a direct relationship between friendship formation and residential proximity between halls, this becoming irrelevant by the end of term. Relationship intensity remained relatively stable. Among those who continued to be friends, the frequency of interaction was central initially, but replaced by level of intimacy as the relationship stabilized. Those involved in close relationship derived more benefits from the process than those involved in "nonprogressing" relationships.

During two periods (one in the Fall, the other in the Spring) of two weeks each, Wheeler and Nezlek (1977) traced the interpersonal activity of a group of 58 freshmen living in coed residences at the University of Rochester. The findings showed that: (1) of all the interpersonal contacts reported, 58% were same-sex, 19% were opposite-sex, and 25% were mixed sex, with men more same-sex and women more opposite-sex or mixed sex; (2) the average number of interpersonal contacts per day was 7.4 while the total duration of these contacts remained stable among men (mean: 340 minutes) but fluctuated among women (Fall, mean: 389 minutes; Spring, mean: 323 minutes); and (3) satisfaction with social interaction varied by gender: following initial contact, the number and duration of contacts among women decreased but their satisfaction increased; among men, their pattern of social contact remained quite stable, but, compared to women, they reported reduced satisfaction. The authors concluded that friendship patterns among freshman students in residence vary as a function of gender and time. During the first semester, women appear to sacrifice relational intensity for sociability and rely more on their same-sex best friends than men. By the second semester, students of both sexes display a similar pattern of peer relations.

Finally, Perkins (1977) explored value similarity among peers at Oberlin College. Respondents consisted of 326 students in 19 same-sex sections of three halls. The return rate was "at least 50%" in

each case. There was no relationship between value similarity and friendship patterns. However, the number of friends in any given section was strongly related to satisfaction with residence life there. The author concluded that friendship patterns more than value similarity or interpersonal attraction predict satisfaction with residence life.

Seen together with data reported above with respect to homogeneous assignment, these data begin to suggest several bases of peer influence. First, friendship patterns evolve out of the interaction of several variables, among them gender, proximity, personality, similarity, population density, interaction frequency, interpersonal closeness, intimacy, and satisfaction. In particular, the more frequently students are in informal contact with one and other, the more likely they are to develop some sort of friendship relationship. Given that contact is especially likely the closer they live together, proximity is a potent predictor of patterns of peer group relations.

As always, however, this obvious generalization is subject to a variety of qualifications. Thus, second, frequent contact alone will not ensure the evolution of friendship, nor its maintenance over time: indeed, it is likely that evolution and maintenance are different processes and involve different sets of variables. Friendship formation depends on several mediating factors. Density will determine the extent to which contact is fleeting or sustained. Ironically, isolation is more likely in high as opposed to low density settings because contact is likely to be too frequent and too brief. Gender will determine what sort of relationship is desired, whether, for example, it remains friendly but distant or becomes close, intimate, enduring and intense. Personality, especially exploration, will influence how many people enter into or are excluded from a given peer network. Also, similarity, at least within a given range, will determine whether a minimum number of bases for a relationship exist. As for satisfaction, its relevance is ambiguous: does satisfaction promote the formation of friendship networks? is it the result of the prior existence of friendship networks? or do the two interact, in the form of a feedback loop? Too little data are available on the basis of which to choose among these competing explanations.

Finally, regarding the means by which mutual influence is effected, these data have little to say directly. However, following Feldman and Newcomb (1969), several mechanisms can be inferred. These mechanisms include: mitigating (or failing to mitigate) the disorientation and loneliness of leaving home; providing (or failing to provide) support under the stress of university life; creating (or failing to create) the opportunity to practice interpersonal skills, especially in a context of difference and diversity; reinforcing (or failing to reinforce) continuity with respect to a range of attributes within a homogeneous environment; inducing (or failing to induce) change by challenging prevailing values, attitudes, mores and standards; introducing (or failing to introduce) much new information (in the language of systems theory, increase the level of variety); accentuating or devaluing (or failing to do either) the pursuit of academic as opposed to non-academic goals; teaching (or failing to teach) academic skills; and, rewarding or punishing (or failing to do either) attitudes and behaviours that are consistent with or deviate from peer group norms.

In this light, when students discuss their university experience over lunch, when they share their feelings and thoughts with others, when they explore an idea, they are undergoing development; when they struggle together over a math problem, when one teaches another how to study for a test, when they work in a group over a shared assignment, they are undergoing development; and, when students see others interacting with their boyfriends or girlfriends, when they see how others relate to their parents, when they hear views just like their own or encounter stereotypical views or biases foreign to their background, they are undergoing development.

This perspective reaffirms a view advanced by various others in the literature (eg. Appel et al., 1973; Bushnell, 1962; Feldman, 1972): peer group relations provide a more potent source of student development than virtually any other. Such relations are centred primarily in residence; Schroeder (1980a) estimates that time in residence accounts for 70% of time on campus. It follows that, without exaggeration, residence life - more than lectures, library work or contact with faculty - is the cradle of student development.

### 4.3.3 Resident Assistants

Discussion of interpersonal sources of student influence typically refer to peers and faculty, occasionally to parents. Frequently omitted is reference to student resident assistants (RAs) who may in fact make frequent contact with students. Data in this area will be divided into three categories concerned, respectively, with **RA selection**, **RA training**, and **RA experience and influence**. It should be noted that much of this material is peripheral to student development per se. Accordingly, its review will be quite brief since its inclusion is primarily for the sake of completeness.

*4.3.3.1 RA Selection.* The primary vehicle for the selection of RAs (also known as paraprofessionals) is the screening interview (Banta, 1969; Correnti & Tuttle, 1972). In many cases this is supplemented by the use of standardized self-report instruments, including: the Personal Orientation Inventory (eg. Graff & Bradshaw, 1970; Graff et al., 1970; Kipp, 1979; Mullozzi & Spees, 1971; Schroeder & Willis, 1973); the Strong Vocational Interest Blank (Murphy & Ortenzi, 1966); the Edwards Personal Preference Schedule (Holbrook, 1972); the MBTI (Wachowiak & Bauer, 1977); the MMPI (Schroeder & Dowse, 1968); and the California Personality Inventory (Hall & Creed, 1979; Morton, 1975)(see also Biggs, 1971; Bodden & Walsh, 1968; Hoyt & Davidson, 1967; Klockars, 1978; Shelton & Mathis, 1976; Wyrick & Mitchell, 1971). Problems with these efforts includes lack of agreement concerning RA's job description (Biggs, 1971; Atkinson et al., 1973) and the use of vague criteria concerning RA's effectiveness (Wyrick & Mitchell, 1971).

More innovative techniques have also been used. These include: use of peer raters (Tibbits, 1977; see Garfield et al., 1978; Morgan et al., 1974); role playing and "sociodrama" (Nair & Sonders, 1969; Sheeder, 1963); and, the leaderless group discussion (Banta & McCormick, 1969; Bass, 1949; Brady, 1955; see Cannon & Peterman, 1973).

Based on his review of these data, Ostroth (1981) concluded, and I agree, that, "while some encouraging results are available, no single instrument or group of instruments has consistently shown predictive validity in a variety of selection settings." He notes, in addition, that, "Several studies have shown different results for male and female subjects. There is some evidence that expectations of male and female hall staff may differ."

*4.3.3.2 RA Training.* Once hired, various methods have been used to train RAs. These include: assertiveness training (Layne et al., 1977); counselling (Morgan et al., 1974; Zirkle & Hudson, 1975); human relations training (Schroeder et al., 1973); t-groups (Rand & Carew, 1970); and, communication skills (Newton, 1974) (see Hipple et al., 1975; Taylor, 1975; Upcraft, 1982). It will hardly be surprising that the proponents of all these methods claim some measure of success, but in the absence of either rigorous or comparative data.

*4.3.3.3 RA Experience and Influence.* Additional evidence regarding the consequences of RA training involve studies of RA experience and of their impact on students. As regards RA experience, several different facets have been examined, especially: stress and burnout (Winston et al., 1984; Novack et al., 1985; Novack & Hanson, 1983; Hornak, 1982; Dirkson, 1981); the sorts of counselling problems encountered by RAs (Shipton & Schuh, 1982; Schuh et al., 1986; Winklepleck & Domke, 1977; Berkowitz & Perkins, 1986); and, how they deal with them (Ness, 1985; Williams & Nelson, 1986; see also Boswinkel, 1986; Dickson, 1981; Dickson & Thayer, 1983; Durden & Neimeyer, 1986; Frierman & Frierman, 1981; German & Jacobs, 1986; Hayes & Burke, 1981; Martin & Gawinski, 1980; O'Neil et al., 1978; Schuh & Shipton, 1983a, 1983b; Thoman, 1979; Zammuto et al., 1979). The range of problems RAs encounter is extremely wide, including problems associated with interpersonal relations, sexuality, misconduct, health, family and emotional crisis. In general, they deal with them well, although there is some evidence of variation by gender, with students seeking assistance from men or women for different sorts of problems (women: interpersonal; men: lifestyle), and with the response of RAs also distinguished by gender, with men more assertive and women more sensitive. No matter how well they deal with the demands of the work, however, it is now clear that it can be highly stressful, with burnout a real risk. This is especially true for RAs who get locked into a self-defeating cycle in which they try to be 'all things to all men', fail, try harder, fail again, and so on. Burnout can be avoided only if RAs learn to say 'no', take time out and ask for support when needed.

As regards RA developmental impact, there is little evidence that relations between students and RAs is consequential in developmental terms. Upcraft (1982: 88), for example, cites two studies, both unpublished, which showed no relationship between student GPA, maturity or persistence and the perception of RAs as competent or incompetent. Similarly, Newton and Krauss (1973) found no relationship between RA "health-engenderingness" (HE) and student academic success. The notion of HE refers to RAs concern for others, and their warmth, trust and affection. And, as noted above,

Ostroth's (1981) review shows no clear relationship between selection procedure and later assessment of RA job performance.

On the basis of this body of work, it appears that RA behaviour is largely irrelevant to student development. This conclusion may be premature, however, given the serious conceptual and methodological problems which characterize this body of work. While RA training is often developmental in orientation and intention, in practical terms it is just as often about enforcing the rules and maintaining order. It is thus unclear to what extent and, especially, in what context(s), RAs actually interact with students in a manner that is intentionally oriented to enhance student development. It is thus hardly surprising if confusion obtains as regards the manner in which RA job performance is evaluated, and by whom (staff or students). These sources of uncertainty permeate the research literature, and also reveal a bias which favours self-report measures as opposed to on-going third-party observation.

On these grounds, I think it entirely too early to write off RAs as regards student development. Instead, I suspect that such effects do occur, at least some of the time. It awaits the use of appropriate research designs to determine whether or not this suspicion is correct.

### 4.3.4 Residence Architecture

The final facet of research at the mesosystem level concerns hall architecture, specifically as regards the layout and design of hall floors. In this context, studies will be grouped into four categories concerned, respectively, with: **floor density; corridor length; floor design**; and, **design intervention.**

*4.3.4.1 Floor Density.* Floor density refers simply to the number of students per floor. This is a variable which intersects with design insofar as floors with double-loaded corridors will have a higher population density than those with suites. The effects of density, however defined, have been examined in several studies (see Baum & Epstein, 1978).

Miller et al. (1981), for example, investigated the relationship between floor density and student affiliative behaviour. Respondents consisted of women freshmen living on a high-density (32-38/floor) (n=27) or a low-density (9-19/floor) (n=40) residence floor at Towson University. The findings showed that, compared to their high-density counterparts, those living under low-density conditions were high both in affiliation and satisfaction.

Stokols et al. (1978) explored the relationship between the perception of residential crowding, classroom experience and student health. Respondents consisted of 31 students from the same large class at the University of California. Respondents lived either in residence or in off-campus apartments. The findings revealed a high correlation between residence and classroom ratings: those who rated their residence floor as crowded were likely to perceive their classroom in a similar fashion. They were also likely to rate both their classroom and their fellow students negatively; ratings of residence and classroom crowding predictive of both (lower) course grades and (higher) visits to the health centre.

Valins and Baum (1973) explored the impact of floor density by asking residents of corridors or suites to place as many miniature figures in a miniature room as they felt they could before beginning to feel crowded. Corridor residents placed significantly fewer figures than did their suite counterparts before feeling crowded. In a related study, Baum et al. (1975) found that peer group stability and cohesiveness helped reduce the impact of those conditions which appeared to create crowding stress (see Baron & Mandel, 1978; Baron et al., 1976; Eoyang, 1974).

Harris and Klein (1981) examined the relationship between assertiveness and floor design, specifically, double-loaded corridors versus suites. Respondents consisted of 78 men attending North Carolina State University. Compared to students living in rooms, those living in suites rated themselves as more assertive over a range of settings. This difference was more true of freshmen than of upperclass students.

*4.3.4.2 Corridor Length.* A correlate of density concerns corridor length, with floors designed with long corridors more densely populated than those designed with short ones.

Available data suggests that corridor length is in fact consequential for student experience. Baum et al. (1978) explored the relationship between learned helplessness and long versus short corridors, and large versus moderate size groups among a sample of 120 freshmen. Those living on floors with long corridors reported less satisfaction, less control and more "helpless" behaviour (eg. self-imposed isolation; escape) than their short corridor counterparts. These differences were directly related to floor population density: the higher the density, the greater the level of reported dissatisfaction and helplessness (see Rodin & Baum, 1978).

Baum and Davis (1980) studied the response of 67 female freshmen divided into three groups: those living on a long corridor floor; those living on a short corridor floor; and, those living on a floor with a long corridor but divided in half by a student lounge. Data were gathered on their first day, their fifth week and their 12th week. In addition, on each floor, 18 residents were randomly selected to perform a cognitive task. On their first day, there was no difference between the three groups. By the fifth week, long corridor residents perceived their floor as more crowded, with themselves less in control of social interaction. They also reported fewer friendships, while floor observers reported left social interaction and a reduced likelihood that room doors would be left open (see Baum & Valins, 1977).

Davis (1978) found that: (1) residents who lived in rooms off double-loaded corridors seldom socialized in the end-hall lounge, but rather in the hallway; this was because the lounge in question was perceived as public territory over which residents had no control over social contact; (2) for the same reason, residents of rooms (as opposed to suites) preferred to interact with friends and neighbours in their bedrooms; (3) by contrast, residents of suites (as opposed to rooms) preferred to socialize in their individual suite lounges; and (4) residents of suites as opposed to rooms were more likely to have a majority of their friends on the floor, participate in local small groups, and self-disclose to and problem-solve with suitemates.

*4.3.4.3 Floor Design.* Floor design is used here in a residual sense, to encompass a range of specific design features not previously mentioned above. Case (1981) interviewed a 25% stratified random sample of male freshman residents of two halls at Princeton University. In one hall, students' shower facilities were located on the same floor as their floor section. In the other, the showers were shared between floors. The halls were then compared in terms of patterns of acquaintance. Substantial differences were found: in the first hall, 32% of acquaintances were between sections on the same floor; in the second hall, 35% of acquaintances were between floors. At one year follow up, hall records revealed that these relationships had remained stable, with the selection of roommates a function both of former acquaintance as well as floor section.

Van Der Ryn and Silverstein (1967), in a study of residence life at the University of California, found that student behaviour in corridors varied by gender. Whereas women dressed to go into the corridor and waited to be invited into another's room, men did neither. Similarly, group bathing facilities, "open" visiting, and coed residences were more problematic for women than men as regards privacy and control over social interaction. The alignment of room doors was problematic for all students, with double-lined corridors having opposite (as opposed to staggered) doors associated with the perception of enforced sociability.[4] Conversely, selected sociability relates to what Festinger et al. (1950) have called "patterns of adjacency" (ie., proximity) and what the authors call the "nod line": the distance within which residents get to know each other well enough to nod to each others; those that do not get the nod live beyond the nod line.

Additional design features which have been observed to shape student interaction include: proximity to the stairs, which serve to channel traffic (those adjacent to them have more contact with residents on floors above and below them) (Festinger et al., 1950); the functional (as opposed to the actual) distance between floor locations (poor design may mean that some locations that are physically adjacent to one another are functionally far apart) (Festinger et al., 1950); the placement of the laundry room and the vending machines which serve as centres of social interaction (Brawne, 1963); the noise and traffic associated with the placement of often poorly maintained elevators in high-rise residences (Wheeler, 1968, cited in Heilweil, 1973); and, the shape of cafeteria tables (round for existing peer groups, square for making new friends)(Heilweil, 1973). In addition, Forrest and Schuh (1976) demonstrated that floor design can affect students' perception of RA effectiveness.

*4.3.4.4 Design Intervention.* Finally, evidence concerning the impact of floor design derives from a series of studies that have attempted to consciously manipulate design in the interests of improved

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[4] *Heilweil (1973) suggest that fiscal constraints shape hall design in important ways. Single rooms have an average area of about 100 square feet compared to the 180 square feet of double rooms. A large number of single rooms increases the total outside perimeter of a given residence building thus driving up the cost, typically amortized over 40 years. Consequently, cost factors favour double-loaded corridors, and higher-density student residences.*

student development. At the University of Georgia, Werring et al. (1981) reported on the effects of a project which allowed residents to paint their room and the adjacent hallway as they saw fit. In all, 12 subunit were involved - six all-male, six all-female - distributed between two 10-storey residences. In each building, three subunits elected to participate in a painting project while three declined the offer. Furthermore, within paint project subunits, some students were active participants while other just watched. The results showed that active participants in the paint projects saw their environment quite differently than either non-participants or those not involved in a project, whereas those in the last two groups did not differ. Specifically, active participants saw their floor as higher in support, involvement, innovation and student influence. Gender differences were also found, with men more likely to see a change in involvement and women a change in order.

Similar findings have been reported by Schroeder and his colleagues in a series of studies at Auburn University (see Schroeder, 1976, 1978, 1980a, 1980b). West et al. (1979), for example, permitted a random sample of 47 freshman men to set up a group room, and to design and furnish it as they saw fit. Compared to a comparison group (n=50), those with access to the group room perceived their environment as more supportive, intellectual and academically oriented, although no difference in either GPA or self-actualization was found. Group members also made more friends on their floor and were more likely to persist.

Jackson and Schroeder (1977) initiated a project based on the notion of "behaviourial zoning" in which the environment is subdivided to allow students to select the level of stimulation they desire on their floor. The authors report that "zoning" increased student satisfaction, enhanced social interaction, and reduced interpersonal conflict (see Schroeder & Connors, 1977).

Schroeder and Freesh (1977) walled off a previously unused entrance foyer to create a lounge and living unit restricted to engineering students. The results showed increases group stability, social interaction, persistence in engineering, academic achievement, and positive perception of the residence environment.

These data provide ample and convincing support for a territorial perspective on student development. Floor density and various features of floor design are highly consequential for various aspects of student residential experience, including affiliation and assertiveness, patterns of peer relations, group stability, academic orientation, satisfaction and, in a few cases, academic performance. Moreover, these relations appear subject to direct manipulation, so-called "environmental management".

The results seem to suggest a direct relationship between population density and the developmental benefits conferred on students living in residence. When density is low and floor designs encourage social interaction while respecting student territorial preferences (eg. privacy, control over social interaction), then conferred benefits appear substantial. When density is high, respect for student territorial preferences are invariably low, in turn lowering the benefits that will likely accrue.

While eminently clear, this trend is problematic in two respects: the causal attributions of proponents of a territorial perspective, and the needs to attend to important qualifiers.

Without saying it explicitly, proponents of a territorial perspective, such as Schroeder (1980a), imply that student residential experience is primarily the product of hall and floor design. They appear to say that by making some simple changes in floor design - paint projects, group rooms, and so on - residence planner can significantly change not only how students experience residence life, but also how they perform as students. The issue turns on the strength of the claim being made. The strong claim would be to suggest that **design alone** can be responsible - can **cause** - student development. The weak claim would see design as relevant only insofar as it facilitates or impedes student social relations, that is, as having **indirect** causal significance.

Of the two, the evidence reviewed above appear to provide better support for the latter claim, and, in turn, calls attention to its qualification. Recall that group membership appears to buffer the perception of crowding stress. Similarly, variations in response have been associated with gender and academic year. Further, these research efforts do **not** take into account the larger environmental context, either of the university in general, the hall in particular (see above, Macrosystem Level) or the dynamics of the relationship among roommates (see below, Microsystem Level).

This qualification on floor design effects supports several inferences. First, they suggest that the impact of floor design is rather more variable than is implied by some of the research reviewed above. Some students, especially men, appear to do just fine under conditions of high-density living. Others, especially women, cope less well under identical conditions. Further, high-density living may be benign over the short-term, resulting in a negative impact only as various and often subtle affronts to students' sense of "personal space" accumulate through time. Such affronts will be most apparent with respect to students who spend considerable time in residence; presumably those who prefer to study in the library will be less affected. Similarly, feedback effects will also likely apply: as initial experience of high-density living reduces students' threshold of crowding stress, this may undermine the stability of peers group relations, thus exacerbating the experience of crowding; perceived crowding may make the residence rooms seem less and less attractive as a place to study; and so on.

Second, that the impact of floor design will always be **indirect**, as a mediator of peer group relations. As I suggested above, **direct** effects of residence appear related to 'community coupled with diversity'. In this sense, floor design is relevant insofar as it appears to facilitate or impede the evolution of patterns of social interaction out of which 'community' will emerge. Further, floor design is **not** confined to issues of density and 'personal space' alone. Rather, it includes a wide range of design features which shape who comes in contact with whom and with what frequency, including the location of stair wells, vending machines, doorways and lounges, and the functional distance between floor locations.

Third, that 'floor' may be too gross a designation in attempting to understand the relationship between design and experience. Instead, students' experience of residence floors appear to be constituted out of a series of relatively discrete **microenvironments** which, in turn, appear to emerge as a function of roommate and peer group relations. Members of stable, cohesive groups will be buffered to a considerable extent from the effects of high-density living arrangements. Conversely, those

who are social isolates, or who are members of conflictual groups, will presumably be exposed to the delirious effects of density. At present, our understanding of the characteristics of these microenvironments - how they evolve, are maintained or change - is extremely poor.

Finally, events and processes on the hall floor are not restricted to this one location in the university system. Rather, to the extent that subsystems within the university are interdependent, as so many of them are, processes in one subsystem will feedback to influence related processes in other subsystems. Students suffering from floor-based crowding stress will apparently perceive their classrooms in similar fashion. From an ecosystemic perspective, such findings are important. Feedback loops are, by definition, bidirectional in character and serve to elaborate and maintain all manner of patterns of interaction, both adaptive and dysfunctional. Wender (1968). refers to the former as "virtuous circles", the latter as "vicious circles". In this context, both the character and the origin of the patterns in question are functionally irrelevant. Whether they begin with crowding stress in residence or in the classroom, feedback processes will ensure that crowding stress in one setting will influence students' perception of related settings. This is as true for student satisfaction as it is for student dissatisfaction, and ultimately encompasses all interdependent contexts. Consequently, to the extent that the hall floor is experientially salient - it is where many students spend most of their time - events and processes there may influence the nature and course of the entire university enterprise, up to and including graduation or attrition.

### 4.3.5 Discussion

From an ecosystemic perspective, the residence literature is problematic in at least two respects. First, research efforts tend to concentrate on residents students seen primarily in large groups. Second, there is a decided methodological preference in this literature for the use of self-report as opposed to interview or observational data gathering techniques. This helps explain the comparatively low volume of studies at the meso- as opposed to the macro- level. It has also meant that detailed knowledge of the patterns of interaction which characterize residential peer groups - how they evolve, what form they take, how they are maintained and how they change through time - are very poorly understood.

In spite of these limitations, the evidence is clear in at least one respect: events and processes at the mesosystem level, the level of the hall floor, are salient for their capacity to confer or withhold a range of developmental benefits. Such benefits appear to be derived from the peer group. Membership in a stable peer group is highly consequently. The friendships formed there are typically retained, elaborated, and may influence future decisions and choices. Similarly, relative isolation or membership in a conflictual peer group will also shape the future experience of students, including their more general view of the university per se.

In turn, peer relations will be shaped by various processes, including homogeneity and diversity as well as proximity and floor design. All appear to operate indirectly, mediating relations among students, and especially influencing (1) who comes in contact with whom (2) with what frequency (3) in what context(s) and (4) over what period of time.

If correct, this interpretation supports a number of related inferences, both for theory and for practice.

Theory. For one thing, it suggests that macro- levels processes are **constituted** out of and **isomorphic** with related events and processes at the meso- level.

In one sense, macro- level processes represent distinct phenomena in their own right. This is so insofar as such processes emerge out of the interaction among lower-level elements, yet do not exist in those elements. Social climate is a case in point. It refers not to any one experience of any one student, but is rather a global construct, derived out the multiple experiences of many students. It is thus a macro- level phenomenon in the sense that it exists and can only exist at that level.

In another sense, however, the macrosystem is merely a useful and convenient metaphor, a way of 'punctuating' reality, which helps us understand and organize some body of data. However, it has no concrete, empirical referent. While students may well identify with a given hall ("I'm from Johnson hall."), they do not do so based on their interaction with "it", the hall itself. Rather, their sense of the hall derives from their interaction with the other students that live there, especially those on their "own" floor. Thus, students' experience of a given hall is really only a shorthand way of referring to the patterns of interaction which characterize relations among student residents: literally, students live on a floor, not in a hall.

In turn, this highlights another generalization, the **third** identified thus far: **For students in residence, developmental benefits (and deficits) will be directly proportional to the closeness and meaning of events and persons.**

By 'closeness' I mean two things: the degree to which relations with others are mutually perceived as involving affection and mutually defined as involving friendship and/or intimacy; and, the degree to which events have an immediate and personal bearing on a given student. By 'meaning' I refer to related processes: the degree to students in regular interaction perceive their relationship to one or more others as personally significant and consequential; and, the degree to which events are interpreted as personally significant. Friendship or intimate relationships may be seen as **primary** relationships; those involving acquaintanceship, as in members of a peer group, as **secondary**.

Thus, primary relationships, those characterized by closeness and meaning - and often lived out on the hall floor - have the potential to confer the most benefits the most directly. They are also the context in which harm is most likely. Secondary relationships may also directly confer benefits, although their potential to do so appears more restricted. All other persons and events will be developmentally relevant only in indirect terms, often as they mediate or shape primary and secondary sources of benefit. The same is true about various floor level design features. Those which facilitate the formation and perpetuation of primary relations will indirectly contribute to student development. Those that impede either their formation or their maintenance will either be developmentally benign, restrictive or harmful.

As for isomorphy, this is a systemic terms referring to structural similarity between patterns at different levels. When certain patterns of child rejection observed in dysfunctional families are also

observed in the interaction between the child and school personnel, than the two patterns may be described as isomorphic. Data at the macro- and meso- levels, seen together, suggest that isomorphic processes may obtain in student residences across these two levels. As in the process of epidemic contagion, patterns of, say, conflict may be initially limited to specific peer groups on a given floor. Feedback processes may extend such processes to other groups, eventually making such patterns characteristic of a given floor. Moreover, various design features which encourage interaction between floors provide the basis for the gradual elaboration of such patterns across floors, thus yielding pattern isomorphy. This then feeds back yet again, stabilizing patterns of conflict, both within and across floors, and making the natural evolution of change or its deliberate induction very difficult. Similar processes of spread and isomorphy help account for group stability and student satisfaction.

This account of the relationship between isomorphy and peer group relations is speculative, based solely on a mere handful of empirical fragments. Nevertheless, it provides an excellent example of the theoretical power of the ecosystemic approach as applied to residence life.

In the same vein, a final speculative comment is in order. It falls under the aegis of one of the thematic issues mentioned previously - differentiation - and concerns the organization of floor microenvironments. Specifically, I suggest that floor microenvironments will tend to take the form of an **ecosystemic hierarchy**. For example, when floor populations are small, homogeneity among floor microenvironments seems likely, as a function of the high level of interaction among floor residents. In turn, particular patterns may come to characterize entire floors, and, indeed, may generalize across floors. The result: pattern stability based on isomorphic processes within and across floors. Under these conditions, it is reasonable to refer to **suprastability** of group processes. When the processes in question are adaptive, such halls are likely to be characterized as "good" by residence staff, since they involve few administrative or policy demands. Such halls will also be most likely to confer developmental benefits on students. The reverse will likely be true - both in terms of staff attributions as well as developmental benefit - when the processes are dysfunctional.

Theoretically, the situation becomes even more interesting when populations rise, and heterogeneity obtains across floor microenvironments. Under these conditions, lower levels of interaction across groups may mean the evolution of subsystems characterized by divergent patterns of interaction. The result: the possibility of a paradox: incongruence across microenvironments on a given floor coupled with isomorphy across floors within the same hall. Such halls would likely be highly unpredictable, making for great difficulty in staff planning. Such halls may confer significant developmental benefits on some students but not others, even though they may live right next door to each other!

The substantive utility of these speculative comments is limited in the near absence of relevant data. More importantly they illustrate the power of the ecosystemic approach to make sense of staff and research observations that otherwise appear incomprehensible.

Practice. Findings as the meso- level also hold a handful of implications for practice, especially with regard to two thematic issues: **the locus of development** and **gender**.

As regards locus, available data suggest that:

**Student development may be facilitated by floor programming which is explicitly developmental in character.**

**Environmental management efforts will yield developmental benefits to the extent that they facilitate primary relations among resident students.**

**Efforts to facilitate student development should be multidimensional in character.**

**One such dimension should emphasize formal student self-determination.**

While not stated explicitly, the thrust of much of the literature suggests that student development in residence is essentially social in character. That is, students, through interpersonal interaction, learn from each other about what it is to be a social being in the world - about the nature of interpersonal responsibility, connectedness and community membership. This being so, there is every reason why residence programming should deal with these very topics, both directly and indirectly.

In this sense, direct programming would, in effect, offer resident students various opportunities to discover the central messages of this monograph. I have in mind workshops, seminars, and the like, which offer such insights in a way that is both informative and fun. The creative use of role play, structured games, and similar methods, might all be used.

Indirect methods would also apply. By this I mean any programming - from discussion groups to intramural volleyball - which provides the context within which residents meet, interact and thus have the opportunity to relate to each other. To the extent that such efforts expand students' sensitivity to interpersonal relating in all its complexity, such programming would offer the participants developmental benefits.

An alternate approach concerns environmental management. This includes any and all deliberate alterations of floor design which affect social relations among resident students. While some proponents emphasize such things as "zoning" and "individualization", such specificity is misleading; any design features which affect the flow of students, and especially their interpersonal interaction, will affect not only how students experience the residence environment, but also the likelihood that they will form and/or maintain primary relationships. In this sense, the range of possible environmental interventions is functionally limited only by the imagination of residence staff, their resources, and the physical design of the buildings in question.

To date, the results of such efforts have typically included heightened student satisfaction, sense of personal control, and the increased stability of the peer group to which they belong. Whether this is significant in developmental terms is unclear, since student development per se has not been the focus of concern. However, from the data reviewed above, it seems reasonable to suggest not only that developmental benefits do indeed accrue, but that they accrue most directly via the formation and maintenance of primary relationships. Note that this interpretation turns on its head the typical way in which such data are understood. That is, student satisfaction, for example, is not seen as a direct effect of a design change, but rather as a bi-product of relationship formation. In turn, this suggests

that future efforts at environmental management have relationship change as a key objective and that this also be the focus of mandatory follow-up evaluation.

While offering significant potential benefits at relatively little cost, environmental management cannot and should not be the only method used. To do so fails to recognize the full extent of student diversity. Given that diversity, developmental programming must be multidimensional in character, for such efforts should be sufficiently varied to capture the interest of as many resident students as possible. Consequently, the efforts which fall under the aegis of developmental programming will typically cover an extraordinary range. This is to emphasize that those things which contribute to student development may not need to be formal programming per se; rather, the extent to which they contribute to student social relations will be the central concern. Thus, the placement of soft drink machines, the purchase of a ping pong table, the use of cork boards to allow students to leave each other messages, and so on, may all have indirect developmental consequences. This is intended to make clear the extent to which staff efforts must continuously be **mindful** of student development as a central guiding objective; it must infuse all aspects of policy and programming, from the largest segment to the smallest.

A case in point concerns the extent of formal student self-determination, including, for example, establishing the rules and regulations which govern student conduct at the floor level. Just as individual responsibility and social awareness are developmental goals within the context of peer relations, they remain equally relevant at the level of the community. Here, the rule of thumb appears to be: **to the extent that students are expected to behave like responsible adults, they will likely do so.**

On the one hand, this points to direct student involvement in hall and floor governance as yet another means of facilitating student development. On the other hand, it implies involving students directly in the creation and evaluation of developmentally oriented floor programming. This appears especially true among older students who, given previously noted implications, can be presumed to have already acquired some grounding in an ecosystemic view of student development.

As for gender, again the data suggest a number of practical implications:

**Developmental benefits will accrue when men and women are afforded the opportunity to interact.**

**The developmental requirements of men and women converge in some respects, diverge in others.**

**Gender-specific programming should be seriously considered.**

**Some programming should be mandatory, while other programming may be left voluntary.**

While much of the data reviewed above emphasizes the ways in which men and women diverge, it is important to see specific differences in the larger context of various commonalities. Patterns of friendship formation and intimacy, especially among older students, are often very similar. In this context, the formation of primary relationships need not be restricted to same-sex others, despite their

obvious importance. Rather, men and women have much to learn from interacting directly with each other in non-sexual ways. It follows that opportunities and contexts which promote such interaction, especially interaction sustained over time, are likely to confer developmental benefits on all the participants. An obvious example concerns the benefits associated with coeducational arrangements in which cross-sex friendships may arise on a routine basis. Other examples include design features which provide the context for such interaction (eg. lounges, recreational space) as well as related structured activities (eg. social events).

This said, there are some gender differences which should be reflected in residence design and programming. In general, women derive most benefits from residence life when floor density is relatively low and contexts exist for the formation of dyadic relations characterized by frequent, extended and relatively intense contact. This would imply that women fair best when placed on floors in which corridors are short, doors staggered, lounge space abundant and opportunities for quiet privacy plentiful. Men, in contrast, better tolerate high density living and are also more comfortable with larger and more loosely organized peer groups in which relations centre on joint activity. This would imply that corridors may be longer and lounge space less available but offset by abundant recreational facilities.

As for floor programming, it is appropriate here to distinguish between that which is generic and that which is gender-specific. The notion of generic programming suggests that there is some information and some experiences from which both men and women would benefit developmentally. I suggest that information which describes the various ways in which men and women converge and diverge, and the problems and rewards of heterosexual relating, is generic in this sense. Just as information regarding the effects of crowding may encourage the development of adaptive strategies, so too data regarding gender variation and residence life may promote the same outcome.

There are, however, specific areas in which students may benefit from gender-specific programming. Ironically, such programming would be oriented toward helping students of each gender better emulate specific attributes in members of the opposite gender. Men, for example, would benefit from programming aimed at helping them become more socially sensitive and mature, including matters touching on communication, intimacy, conflict resolution, and the like. Conversely, women would benefit from programming aimed at helping them become more independent, self-assured, assertive and confident with regard to career planning and the like.

Finally, given that gender-related sources of commonality and difference are relative rather than absolute, a corresponding concern relates to the issue of mandatory versus voluntary participation in such programming. Here, it seems reasonable that generic programming be mandatory while gender-specific programming be voluntary. While all students would appear to benefit from some level of awareness of cross-sex variation, the degree of student diversity means that only some students would benefit from its gender-specific counterparts. While the majority of freshman men appear to be more socially immature than the majority of freshman women, this difference is by no means universal.

Voluntary participation would thus allow those who wish gender-specific information and opportunities for experience to access them; others may occupy their time elsewhere.

### 4.4 Microsystem Level

Operationally, the microsystem level refers to events and processes within the residence room or suite and, typically concern relations among roommate dyads. Data with respect to these processes are relatively voluminous, falling approximately between those at the macro- (high) and meso- (low) levels. While often scattered and fragmentary, studies at this level will be organized into **four** categories concerned, respectively, with: **roommate compatibility; roommate intervention; parent-student relations;** and, **residential architecture** (room).

#### 4.4.1 Roommate Compatibility

Roommate compatibility has not been rigorously defined in the relevant literature, but is generally understood to refer to the ability of roommates to live and work together in relative harmony (see Longino, 1972; Lapidus et al., 1985). It is important to students insofar as over half of the freshmen surveyed by Van der Ryn and Silverstein (1967) reported roommate conflict as a major adjustment problem. It is also important to residence staff because of the demands associated with shifting students when roommate relationships fail.For both reasons, the issue has received considerable attention in the literature. Following, Lapidus et al. (1985), relevant studies will be grouped into **six** categories: **personality; values and attitudes; background variables; living habits; other;** and, **outcome.** It should be noted that these categories are not entirely discrete given that some studies deal with a variety of variables.

***4.4.1.1 Personality.*** A number of studies have explored personality similarity as predictor of roommate compatibility, with little comparability across studies as to the way in which personality is measured. Carey et al.(1986), for example, used the MBTI to assess personality similarity among 67 male roommate pairs. While there was indeed a relationship between similarity by personality type and satisfaction with the relationship, there was no relationship between satisfaction and either similarity of communication style or balanced versus imbalanced personality type (see Schroeder, 1976; Schroeder et al., 1980; Kalsbeek et al., 1982).

Jones et al. (1980) investigated the relationship between compatibility and Machiavellianism, a personality attribute concerned with control and manipulation of others. Respondents consisted of 70 female roommate pairs, all in their second semester. The results showed that compatible roommates were less likely to display Machiavellian attributes than their incompatible counterparts on four items on a 20-item scale (see Hokanson et al., 1986).

Doherty and Secord (1971) examined the relationship between interpersonal congruency, satisfaction and compatibility. The sample consisted of 78 female freshman roommate pairs. The results indicated that compared to dissatisfied roommates, their satisfied counterparts reported greater

perceived interpersonal congruency. However, personality similarity failed to discriminate between satisfied and dissatisfied roommate pairs (see Batt, 1972; Curry & Kenny, 1974; Eigenbrod, 1969; Pierce, 1970; Wetzel et al., 1979).

*4.4.1.2 Values and Attitudes.* The relationship between attitudinal or value similarity and compatibility has been the focus of studies in this subsection. Nudd (1962), for example, explored the values of 80 male and female roommate pairs. While few differences were found, dissatisfied roommates were more likely to differ on economic and religious values than satisfied pairs.

Hill and Stull (1981), in a similar study, sought to discover whether value similarity was more important to male as opposed to female roommate pairs. The results supported their suspicion: female pairs placed much more emphasis on value similarity than their male counterparts. This was because females placed more emphasis on communication and enduring friendship relationships than men who defined their relationship as involving no commitment to friendship. The authors explain these differences in terms of divergent patterns of socialization in which women's relational focus is matched by men's more instrumental approach.

Similarly, Pierce and Schwartz (1974) found that the relationship between value similarity and satisfaction was mediated by time. While there was no relationship between the two variables in the Fall, a positive relationship was obtained in the Spring. Further, while value similarity was unrelated to tension, the latter was inversely related to satisfaction: as satisfaction rose, tension fell (cf. Perkins, 1977).

*4.4.1.3 Background Variables.* Efforts to relate compatibility to background variables have generally focused on SES, gender and GPA. Hallisey et al. (1980), for example, retrospectively examined 429 roommate pairs who had either stayed together or broken up. There was no apparent demographic differences between the two groups, although GPA was inversely related to attrition and directly related to movement into a fraternity (especially among men)(see Broxton, 1962; Hall & Willerman, 1963; Volkwein, 1966).

Scheidt and Smith (1974, 1976) explored the relationship between birth order and roommate conflict among 31 pairs of male and female roommates. Generally, "compatible" pairs, irrespective of gender, displayed less conflict than their "incompatible" counterparts (see Schuh & Williams, 1977).

Lozier (1970) compared three groups based on room assignment among a total of 89 male roommate pairs. One group was randomly assigned alphabetically. Another group was assigned on the basis of similar educational goals. A third group was assigned on the basis of shared extracurricular plans. The results showed that homogeneous assignment yielded high levels of compatibility evidenced by the (low) number of requests for room changes. However, when compatibility was assessed in terms of student perception, no differences were found.

*4.4.1.4 Living Habits.* Studies relating compatibility to living habits have typically focused on such things as sleep schedules and study habits. Beil and Green (1986), for example, explored the sleeping, smoking and study habits of 142 women and 140 men divided into three groups: randomly assigned; matched by sleep habits only; and, matched by both sleep and study habits. While there was no difference by gender, pairs matched on both sleep and study habits changed rooms less often than pairs in the other two groups. There was also a trend favouring matched groups in terms of satisfaction and roommate affection.

*4.4.1.5 Other.* A few studies do not fit into any of the above categories. Gehring (1970) examined 93 freshman male roommate pairs divided into two groups: matched randomly or matched on the basis of background and living habits. As measured by the number of room changes, there was no difference between the two groups.

Roby et al. (1977) explored 102 female freshman roommate pairs divided into three groups: matched randomly, unmatched or matched on the basis of stated preferences. Students matched on the basis of stated preferences were most compatible and least likely to change rooms.

Finally, Berg (1984) explored the development of friendship among roommates. Respondents consisted of 48 roommate pairs who, in the Fall, were previously unacquainted. In the Spring, follow-up data were gathered on 39 pairs. In general, a positive relationship was found between satisfaction, liking and perceived benefits and rewards, both in the Fall and the Spring. For the majority who did not plan to remain together the following year (59%), satisfaction tended to decline through time, as did the level of perceived similarity, help received, self-disclosure, and desirability in comparison to alternative housing options. Women were more likely than men to rate roommate relationships positively, with the former stressing received help and the latter complaining of inequity and the greater desirability of available alternatives (see Rands, 1987).

From the data reviewed above, it will be apparent that research concerning factors associated with roommate compatibility is decidedly mixed. For every study reporting a positive difference or association, there is another reporting the opposite. As Lapidus et al. (1985) conclude, on the basis of their review of these data,

> There has been relatively little success in discovering factors that are clearly correlated with roommate compatibility and even less success in predicting compatibility by matching roommates on an a priori basis on critical variables.

Such variation notwithstanding, Lapidus et al. (1985) suggest that "factors clearly tied to the behaviour occurring in the room" (ie., living habits) may hold the most promise for residence life staff. In contrast, Garb (1978) advances a more complex model. This views the course of roommate relations as stage-specific, with living habits only initially important, followed by reciprocal behaviours (eg. the congruence of expectations and reality), and homogamy with respect to attitudes and value as simple contact evolves into strong friendship.

A key question here concerns the reasons for such empirical variability. Lapidus et al. (1985) argue that it is primarily a methodological artifact of weak research design, and the inconsistent conceptualization and measurement of key variables. I would add that the problem is also conceptual in a broader sense. It is extraordinary that efforts to understand the basis of roommate compatibility have not, in essence, progressed much beyond the 'birds-of-a-feather' hypothesis (ie., simple homogamy) explored by Zumwinkle back in 1953. Even more important, extant research efforts have entirely ignored both the emergent character of friendship relationships as well as the larger social context within which they are set and to which they inextricably linked. Indeed, roommate dyads stand at the centre of an organized ecosystem which includes their peer group, proximate neighbours and those in the immediate corridor, the hall floor, the dynamics of the hall building, the hall's place with the residence system and, ultimately, the university campus. While proximal events and processes will likely have the greatest and most direct influence, distal process too can indirectly be highly influential.

*4.4.1.6 Outcome.* In the context of the present review, there remains one issue of great consequence, namely, "So what?" What, if any, are the developmental results of roommate relationships, compatible or otherwise? The issue has been the focus of a number of studies exploring quite a range of variables.

Several studies, for example have explored the relationship between compatibility and academic achievement. Pace (1970) examined the relationship between academic achievement and perception of the college environment among a sample of "most dissatisfied" and "least dissatisfied" roommate pairs. The results showed that compared to least dissatisfied pairs, their most dissatisfied counterparts had lower GPAs and a more negative view of the campus (see Murray, 1961; Pierce, 1968). Similarly, Ainsworth and Maynard (1976) found that while high-achievers continued to perform as before when paired with average-ability roommates, the GPAs of low-ability students rose when paired with high-achievers. The same was true of Snead and Caple (1971) in which roommate assignment was based on personality. However, the result held only for men; roommate compatibility was unrelated to GPA among women.

In a related vein, Erwin (1983) examined the impact of roommate assignment on the basis of student maturity among 110 freshmen. The findings were negative. While high maturity students remained unchanged, irrespective of the maturity level of their roommates, the same was true of their low maturity counterparts.

Sloan and Solano (1984) conducted an experiment among a class of male introductory psychology students. Ten students who rated themselves as lonely and 10 who saw themselves as not lonely were asked to talk for 10 minutes, either with their roommate or with a same-sex stranger. In general, those who self-rated as lonely talked less and were less open than those who were not lonely, irrespective of who they spoke to.

Rubin and Shenker (1978) explored self-disclosure among hallmate or roommate pairs, both male (n=35) and female (28), all of whom had been previously unacquainted. In general, self-disclosure

was related to reciprocity of interaction (r=0.65) and proximity, with relationships between roommates rated as closer than those with hallmates, especially among men. Closeness and self-disclosure were also strongly related.

Anchors and Hale (1985) were more concerned with process than outcome. A sample of 422 freshman were first rated on the MBTI. They were then permitted to self-select into roommate pairs. Analysis of who paired with whom revealed that introverts, intuitives, feelers and perceivers paired homogamously, selecting a roommate with the same personality type. Extroverts, sensors, thinkers and judgers selected someone who was different.

Waldo and his colleagues have done three studies concerned with roommate compatibility and communication (Waldo & Fuhriman, 1981; Waldo, 1984, 1986). In the first study, respondents consisted of 19 roommate pairs whose relationship was assessed in terms of quality (eg. trust, intimacy, communication). Compared to those with a low quality relationship, their high quality counterparts were more satisfied, well adjusted and physically healthy. They also reported fewer problems with submissiveness or hostility, and were more likely to self-disclose. The ability to state personal feelings clearly was more important to relationship quality than the ability to listen with acceptance.

In the second study, relationship quality among roommates was assessed among a sample of 138 resident students heterogeneous as regards race, academic year, and hall size and height. Data were collected at weeks 6 and 12 of the Fall semester. In general, the findings showed that the higher the quality of peer relations, the lower the level of personal maladjustment and the higher the level of communications skills. Additional findings indicated that: (1) relationship quality was negatively related to level of anxiety, depression and alcohol use, and positively related to listening and communication skills; (2) listening skills were positively related to perceived emotional support; and (3) communication skills were negatively related to depression and alcohol use, and positively related to perceived emotional support and interpersonal involvement. The author concluded that the findings "supports theory and previous research on peer relationships and college student development." He also cautioned that, "Correlations between many of the variables were moderate or low, suggesting that many factors ... affect the quality of students' relationships and their adjustment."

In the third study, the Waldo examined the relationship between roommate relations, personal adjustment and academic performance. Respondents consisted of 127 resident students, 52 women and 75 men. All were involved in a one-on-one relationship with a roommate. The results indicated that GPA was positively related to (low) anxiety level, (high) communication skills, (high) self-reported roommate communication skills, and the (high) quality of the respondent-roommate relationship. Conversely, GPA was also negatively related to (low) depression and (low) alcohol use. Similarly, Crew and Giblette (1965) found that freshman roommates that took the same required courses got higher grades than predicted for freshmen in the general population.

Finally, Boyer (1965) found that resident students' need for affiliation was associated with the degree to which both their behaviour and their average grades were influenced by fellow students in six-person residence suites. Ainsworth and Maynard (1976) also found personality an important

correlate of academic success. In their work, the GPAs of low ability students were higher when their roommates were high ability students with similar personality profiles.

These data provide additional support for the importance of such notions as community and its relationship to student development. Students appear most affected by those in their immediate environment who touch them personally and meaningfully. There is no one in the residence environment (see below, Parent-Students Relations) more likely to do so than their roommate. When such relationships work well, they can confer very significant developmental benefits, including increased satisfaction, adjustment, positive perception of the university at large, and possibly GPA. When they work poorly, they can retard development along the same dimensions.

Note, however, that such benefits do not derive solely from what transpires in the interaction between roommate pairs. They also depend upon who the participants are, what they bring with them into the relationship, and how that relationship evolves through time. When given a free choice, self-selection patterns may make a significant difference. High-ability students retain their abilities, irrespective of the related skills of their roommates; it is their low-ability roommates that benefit. Further, communication and listening skills can make or break a relationship, whatever its initial potential, for the evolution of a high quality relationship is no easy matter. Indeed, in the majority of cases, such efforts apparently fail, although this is more likely among men than women.

### 4.4.2 Roommate Intervention

If, as suggested above, high quality roommate relationships are developmentally advantageous, and if they depend on the presence of particular skills, then perhaps such skills can be taught. This is the logic at the heart of a handful of studies which have tried to do just that.

Allred and Graff (1980), for example, describe a highly structured communication program whose purpose was to teach roommate dyads "verbal behaviour skills". Involving 39 female dyads, 19 were randomly assigned to the experimental group, the balance to the control group. The program itself involved six hours of instruction coupled with an eight-week follow-up. As expected, the communications skills of participants in the experimental group improved significantly.

Miller and Zorad (1977) developed a model to help roommates resolve interpersonal conflict based on a related program designed for marital couples. Delivered by RAs trained for the purpose, the program was offered to resident students in one hall (population: 600) and not in another of comparable size. Retrospective review of records revealed that there were 48 room changes in the experimental hall compared to 97 in the control hall.

Finally, Waldo and his colleagues have extended their work, reported above, by creating a series of roommate communication workshops (Waldo, 1985; Waldo & Morrill, 1983). Led by RAs training for the purpose, the workshops in question involved six two-hour sessions. While participants reported significant improvement over baseline, at posttest, there was no difference between experimental and control groups.

In this context, I have very little to add. The premise underlying these efforts seems reasonable, and their methods promising. However, as I have suggested above, they are based on an incomplete understanding of the dynamics of roommate relations, and their generalizability to other campuses is unknown.

### 4.4.3 Parent-Student Relations

As I have noted before, resident students do not interact solely with others on campus. They will typically maintain on-going relations with various significant others who reside elsewhere. Chief among these will be their parents with whom regular contact, either in person or on the telephone, will be typical, especially for freshmen. In this sense, parent-student relations are primary relations, and thus should be developmentally consequential. When confined solely to the higher education literature, it is hard to say whether this is true or not, for research exploration of this possibility has been minimal. There is, however, ample supportive evidence elsewhere, so much so that I have recently completed a monograph on the topic (Benjamin, 1988). It follows that thorough review of this literature is quite beyond the scope of the present paper. Instead, I briefly describe three representative studies illustrative of the thrust of this body of work.

A classic study in this tradition is the work of Westley and Epstein (1969). This relied on a self-selected sample of just under 100 mostly middle-class families each of whom had at least one child attending McGill University in Montreal, Quebec (Canada). All students were doing well academically at the time of their participation. Of these families, 59 agreed to in-depth psychiatric assessment in which all family members took part in one or more clinical interviews and completed a test battery. From preliminary results, the authors speculate that the most dysfunctional families were those that refused more intensive participation. Given the authors psychiatric orientation, one focus of inquiry was the distribution of pathology among subject families. Other concerns included the character of the marital relationship, the distribution of power in the family, and the relative degree of status mobility among husbands and wives.

The core findings showed that 26% of subject families were well functioning, 30% displayed mild symptomatology, 30% showed moderate symptomatology and 14% were frankly impaired. Family mental health - and thus the mental health of their student offspring - was associated with a balanced division of labour in a father-led family characterized by maternal upward mobility, good problem solving skills, full acceptance of their marital and parental roles, and sexual intercourse among marital partners at the rate of four or more times per month.

More generally, the findings showed that the mental health of university undergraduates was critically dependent on the character and quality of their parents' marital relationship. Spousal pairs distributed on a continuum. At one end, were those 5% of couples characterized by "the adoration complex", a relationship in which both partners, despite 20 or more years of marriage, continued to see each other as ideal mates. At the other extreme, were relationships characterized by intense and on-going conflict and the display of psychiatric symptomatology by both spouses. The majority involved

mild to moderate symptomatology, typically by one spouse, with over 50% of the spouses in this sample having ceased entirely to engage in sexual intercourse. Typically one spouse compensated for the other, thus completely insulating their children and leaving them free to develop normally. Furthermore, pathology was associated with downward mobility among the wives but upward mobility among the husbands.

Additional findings related to adolescent functioning showed that child health was related to (1) the psychological "health" of the mothers rather than the fathers; (2) the degree to which cross-sex parents participated actively in parenting; and (3) among the boys only, the family's social status (high).

A more recent example is provided by the work of Komarovsky (1985). This involved over 200 female resident undergraduates attending a number of ivy league women's universities in the United States. Longitudinal data included periodic interviews, a test battery, and time and personal diaries kept expressly for this study. The study purports to explore the personal development of these women. In fact, it focused on three themes: parent-adolescent relations, career orientation, and peer relations, especially relations with boyfriends. The findings with respect to the first two themes only will be summarized here.

In simplified form, three findings stand out as central. First, the relationship between these women and their parents was a critical factor in predicting the nature and course of their individual development. These relations distributed on a continuum, from close, to conflictual, to alienated. Those girls with a close, supportive relationship were best prepared socially for the rigors of university life. In turn, parental support depended in part on parental educational experience. Those parents who themselves had a university education - some of them at the same university their daughters were now attending - were more likely to be supportive than those that had no such experience.

Second, family relations could either reinforce and enliven the university experience or be a significant source of cross-pressure. For example, for the minority of subjects who came from a working class background, the university experience could be the basis of increased family conflict. Working class fathers in particular harboured ambiguous feelings. On the one hand, their daughters' attendance at a prestigious university was a source of vicarious achievement (these women were often the first family member to have ever done so). On the other hand, the increasing independence of their daughters' behaviour was often incongruent with their own ideals concerning a daughter's proper behaviour. In such cases, parental anxiety over the perceived deleterious effects of the university moral climate could be a source of much conflict.

For those able to come to terms with this conflict, the result appeared to be a major shift in the basis of their relationship with their daughters, as each comes to see the other differently. Parents gradually come to accept that their daughters were no longer children in need of protection, but rather adults in need of continuing but more equal support. Similarly, daughters come to see that their parents were no longer authority figures one must obey, but rather trusted allies whose advice should be respected but not necessarily accepted. In this sense, the university experience was indeed one of

growing self-assurance and independence, but it was also one which both parents and adult children shared. It does not mark the cessation of the parent-adult child relationship, but rather a transitional period during which that relationship matures, changing all of its participants in turn.

Finally, their parents' marital relationship was critical to the career orientation of these university students. Here, five distinct and changeable orientations were distinguished: those that held a traditional view of marriage and career; those who expressed a commitment to a future career; those who underwent a conversion from a traditional to a career orientation; those whose conversion moved in the opposite direction, from a career to a traditional perspective; and, student waiverers who oscillated back and forth between traditional and career orientations. These categories appeared to reflect variation in a constellation of variables, including family values, degree of parental support or opposition, mothers who had been homemakers or had had careers, marital relations among parents that were harmonious or conflictual, and maternal satisfaction or dissatisfaction.

The final example is provided by the work of Held and Bellows (1983) who explored the relationship between family processes and student crisis reactions. In their sample, student dysfunction reflected response to a family "bind". On the one hand, they were typically members of an enmeshed or overly close family in which unfulfilled parental aspirations were covertly transmitted to their student offspring. On the other hand, they were confronted with an implicit prohibition against change, growth or development in relation to the on-going conflict which typically characterized their parents fragile marital relationship. In accord with a classic "bind", these students were put in the wrong whatever they did. To do well in university was to make their parents proud of them but contravened the prohibition against change. Conversely, to do nothing or to fail academically would be to comply with the prohibition, but would simultaneously crush their parents' vicarious hopes of achievement and success.

But the picture does not end there, however. Although one child, the identified patient (IP) was caught in the on-going marital struggle, other siblings were freed to opt out of this triangle and thus escape dysfunction. The special significance of these IPs may have resulted from the fact that most had been born either following a miscarriage, the death of a sibling or the death of a family member. They were, in addition, often the first member of the family to have gone to university which, in turn, often required a major financial sacrifice on the family's part. Thus, these IPs were typically the oldest child and so held the final responsibility for academic success or the youngest child and so were their family's last chance for success.

Taking this complex constellation of family processes into account, the authors argue that the crisis reaction of these students was in fact a cry for help, a last ditch attempt to alter their family's dysfunctional structure before it could destroy them utterly. Indeed, being pulled apart by forces too powerful for them to control, the risk of suicide among these students was a very real one.

It is difficult to overestimate the importance of these data. Whereas fragmentary evidence suggestive of the developmental importance of parent-student interaction emerged in previous sections, these studies provide systematic and compelling evidence to the same effect.

It is now evident that students do not enter residence life as tabla rasa, clean slates ready to be shaped and formed. Rather, they are already fully formed even before they leave home. In particular, they have internalized an array of complex interaction patterns which organizes how they think, feel and behave with others. Further, such patterns are sustained as parent-student interaction is on-going throughout the college years, although likely gradually diminishing in influence through time.[5] As adolescents, dependent in their parents eyes, the move into residence will ideally signal the evolution of a relationship of adult co-equals.

Of course ideal and reality are not always consistent. While parents may provide a crucial source of support to students in residence - including financial support - they may also be the basis of overwhelming cross-pressure. The key appears to be the extent to which university entry signals a developmental change in family processes. Among flexible families, this is a time for expected (if not always welcome) change, not only in themselves, but also in their offspring. Education, after all, is explicitly directed toward change. Among inflexible families, however, the rhetoric of change may in fact conceal substantial resistance against it, with change in student offspring seen as disruptive and threatening, even to the point of crisis. In the former case, processes in residence which confer developmental benefits will be complemented by related processes in the interaction between students and their parents. In the latter case, the opposite will occur, with processes which facilitate development in one context matched by processes which retard or even reverse development in the other.

Finally, a word about compensation or mitigation. As noted above, pathology on the part of one parent may be mitigated by the health of the other parent. Similar processes appear to apply with respect to the relationship between processes in the family and in residence. While processes in each context may oppose each other, they may also compensate for each other. Students from affectively impoverished families may literally flourish in the richly stimulating and supportive environment provided by residence life in general and a quality roommate relationship in particular. Conversely, the reverse may also obtain. Residence students may be protected from harm by the support and even the active intervention of loving and caring parents.

### 4.4.4 Residential Architecture

The final facet of study at the micro- level concerns residential architecture, in this instance, as regards the residence room or suite. Data in this context will be grouped into two categories - overassignment and design - examined in that order.

*4.4.4.1 Overassignment.* Overassignment or "expanded occupancy" (Spencer, 1979) refers simply to that occasion in which three (and sometimes more) students are assigned to a room designed for only two. This can occur naturally, when residence systems are confronted with excess demand (eg.

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[5] *While I have focused here on parents, similar developmental consequences are likely to flow from the relationship between students and their spouses (and children).*

emergency housing), or it may be induced as a deliberate manipulation in the interests of research. In either case, research concern has focused on the consequences room density, especially as regards academic performance and social relations.

A substantial number of studies have explored the relationship between overassignment and student GPA, including Baron et al. (1976), Dressler and North (1978), Goldman (1966), Hallenbeck and Balswick (1978), Hefke and Cahill (1981), Karlin et al. (1979), Lyon (1976), Maurais (1968), McLaughlin et al. (1973), Parson (1982), Severinsen et al. (1970), and Yager and Gabriel (1972). With few exceptions, the results have uniformly been negative.

Hefke and Cahill (1981), for example, compared the GPAs of 607 first semester freshmen assigned to double rooms with 811 who were overassigned. There was no difference in GPAs, either across groups or within sex. Slight cross-sex variation were uncovered: double room assigned males recording higher GPAs than overassigned females.

Karlin et al. (1979) looked at the temporal effects of overassignment. The authors examined the academic performance of 63 upperclass student, 36 of whom had taken part as freshmen in a crowding experiment involving overassignment, at the University of Rutgers. The results showed that overassigned students performed better than those not previously overassigned. The authors interpret the findings in relative terms, to reflect a reversal of previously depressed freshman grades that resulted from overassignment. Further, overassignment was not without social consequences. Overassigned students requested more room changes and more changes of roommate than their double room counterparts, and were more dissatisfied with the entire university experience. The authors also speculate that the early childhood experience of crowded living conditions may have mitigated the experience of overassignment for some students.

These findings suggest that the primary consequences of overassignment may be social rather than academic. This has been confirmed by a number of studies.

Walden et al. (1981), for example, assigned a stratified random sample of 120 freshmen to double room or overassigned conditions. Slightly under half were examined on 10 week follow-up. The general finding was that overassigned students, unlike their double room counterparts, experienced crowding stress. Overassigned students experienced less freedom of movement, placed less value on privacy, and spent significantly less time in their room, although no effects on either locus of control or aggression were noted. The authors suggest that crowding stress may be related to urbanization, with students from suburban areas more susceptible to stress than those from either urban or rural homes (see Baron et al., 1976).

Baum et al. (1979) report two studies related to the effects of overassignment. In the first study, 20 students in double rooms were compared with 45 overassigned students. Overassigned students compared to their double room counterparts were more likely to feel left out, isolated, and crowded. They also felt less in control over room decoration or personal privacy, were less able to block entry to uninvited guests, and were less likely to make friends with roommates. In the second study, eight groups of overassigned female students were asked what they would take with them to aid

their survival if they were shipwrecked on the moon. The authors compared the responses of seven respondents who felt isolated with those of 17 others who did not report such feelings. The results showed that isolates compared to others spent less time in their room and reported more interpersonal conflict with roommates. Groups containing isolates were also less able than others to reach consensus in relation to the game, with isolates making fewer contributions. The authors conclude that a major problem with student overassignment may be one of coalition formation, in which two students join together against a third (see Nadler et al., 1982; Brandt & Chapman, 1981; Reddy et al., 1981).

Spencer (1984) assigned 160 students to double or quad (ie., four-person) rooms in two high-rise residences at the University of Delaware. In general, students in quads were more likely than those in double rooms to experience stress (cf. Hughey, 1983), were less satisfied and engaged in more "antisocial" behaviour (as a means, the author suggests, of reducing stress). Crowding stress generalized to other campus locations among double room occupants only. Gender differences, however, were also prominent. Women, for example, preferred double rooms and experienced more stress in quads than in double rooms. Men experienced less stress in quads than women, and were more likely to engage in antisocial behaviour (eg. property damage) than were women. Similar findings are reported by others (eg. Gormley & Aeillo, 1982; Aeillo et al., 1981; Aeillo et al., 1977; Vinsel et al., 1980) with the addition that room density may be inversely related to persistence: high density increases the likelihood of attrition (eg. McNeel, 1981).

Spencer (1984) speculates that gender differences in response to crowding stress may reflect different levels of intrapersonal and social awareness. Women, more in touch with their feelings and more sensitive to the needs of others, may not need to act out in the face of high stress; discussing their feelings with others and working them through intrapersonally may suffice. Less mature in both respects, men, faced with comparable levels of stress, deal with their feelings by acting them out. This difference may conceal the possibility that women actually experience more negative affect than men under conditions of high density living.

*4.4.4.2 Design.* Studies of room design yield findings which complement those concerned with overassignment. Mandel et al. (1980), for example, report on two studies at the University of Connecticut. In the first study, perceived room size was negatively related to physical crowding but unrelated to social crowding. Further, whereas women defined crowding mainly in physical terms, men defined it in both physical and social terms. In the second, student satisfaction with and perception of their room was related to the view available to them out of their window. Respondents all lived on the lower five floors of a high-rise housing complex, with windows either facing a river valley or the university campus. Overall, the river valley view was preferred, especially by women. This was also true of respondents living on the higher floors, with those on the lower floors relying on pictures and wall hangings, again especially among women. Further, with increasing height in the building, women perceived their rooms as larger while men saw them as smaller. Height was also related to the level of room illumination which, in turn, was positively related to room size: the brighter the room, the

larger (and less crowded) it appeared. Similar observations concern room illumination have been made by Baum and Davis (1976) and Schiffenbauer et al. (1977).

Desmond and Glenwick (1987) report on a time budget study among 117 residential students at Fordham University. The response was 40%, with respondents heterogeneous as to year and gender. Data were gathered on two days of the week (Tuesday, Saturday) during the Spring semester. The results indicated major differences in activity by year and by gender, with more academic work likely on Tuesdays and more social activity likely on Saturdays. Females spent more time than males in self-grooming, and, compared seniors, freshmen spent more time studying and less time working, socializing or in recreational pursuits. Similarly, Quinn (1986) found that the proportion of students studying in their residence room decreased as the number of occupants increased (from 86% with a sole occupant to 20% with three or more occupants). Finally, Kuh and Walsh (1982) found that students spent an average of 18 hours per week studying compared to the 23 hours per week the authors estimated was needed. Time spent in studying in the residence hall, and especially the residence room, was related to respondents' satisfaction with study conditions.

Desor (1972) reports that barriers or physical partitions in a room helped reduce the perception of crowding. Van der Ryn and Silverstein (1967) found that room furniture often involved flat shiny surfaces that were easy to clean but which reflected rather than absorbed sound.[6] Whereas women tend to arrange room furniture in a symmetrical fashion (with the bed near a corner), this is less the case with men. It was also commonplace for students to arrange their desks out of line-of-sight in order to reduce visual distracts while studying.

In that regard, Sommer (1969b) found that roommate study patterns tend to become synchronized: the likelihood that one roommate will study while the other is doing so was 0.75; it was only 0.25 when one roommate was not studying. Estabrook and Sommer (1966) also found that study habits varied by personality. Whereas introverts prefer to study at a desk with a hard chair, extroverts prefer to do so in a soft chair or on a couch; the two groups did not differ in total study time (see Hogan & Hendrickson, 1984).

Finally, several authors report on the advantages associated with allowing students to personalize their residence rooms. Schroeder (1976) reported that persistence and academic achievement rose while room damage fell (by 82%) over three years among men involved in such a program (see Schroeder, 1980a). Similarly, Hansen and Altman (1976) found that compared to students that persisted, those that dropped out had fewer room decorations, both in number and variety.

In microcosm, data with respect to residence architecture mirror the methodological problems rampant throughout the residence literature. We know from earlier sections that the density and design

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[6] *Heilweil (1973) suggests that there is considerable financial pressure on residence planners to design residence rooms with built-in furniture. This is so for two reasons: built-in furniture takes up less space and so is less costly than moveable furniture; and, loans for hall construction typically include the cost of built-in furniture but not furniture which is either moveable or removable.*

of hall buildings and floors makes a difference to the students who live there. It now appears that the same is true of the density and design of residence rooms. Yet research with respect to the latter is heterogeneous with respect to the former! Several studies cited above, for example, extol the virtues of low density rooms based on the responses of students who lived in high-density, high-rise building. Consequently, it is far from clear whether the findings are a function of room density, floor density, hall density or some combination of all three.

Again, this is not to counsel despair, merely caution. The consistency of the findings are such that the phenomena to which they refer are probably genuine, but highlights the utility of a differentiated approach. The question is **not**: "Does room density make a difference? but rather: (1) what level and type of density, (2) makes what sort of difference, (3) for which students, (4) living in what context(s), (5) over what period of time?

These limitations aside, in the present context, these data are especially important in two respects. First, they emphasize in detail the systematic differences in the way in which men and women perceive and respond to their environment. At the risk of stereotypy, it appears that men attack their environment, women accommodate to it; men tend toward the functional, women toward the aesthetic; men towards the instrumental, women toward the relational; and, men tend to externalize, women to internalize. As usual, qualification is in order: such differences, prominent among freshmen, tend to diminish in importance or disappear altogether among seniors. This helps explain one source of variation in the literature while at the same time suggesting that male and female freshmen may, on entry, be at different stages of development, though they may converge through time.

Second, the data underline the importance of context-specific patterns of interaction. In double rooms, roommate relations survive or crumble on a variety of bases, including similar (or different) living habits and congruent (or incongruent) interpersonal skills. In overassigned contexts, an additional possibility arises: coalition formation. Pairs in coalition prosper (ie., develop), isolates suffer (ie., are retarded in their development).

Neither of these characterizations - either gender or coalitions - are the complete story, for these data raise as many questions as they answer. Most women experience considerable stress under high-density living conditions, but some do just fine. Most men are satisfied with high-density living, but some cannot cope with it. What determines either outcome? Under overassigned living conditions, some triads will form coalitions while others form into integrated groups. Why should this be? And most students will perform academically in accord with their academic aptitude, largely irrespective of their living conditions and despite the fact that they may be quite unhappy while doing so. How are these divergent results to be reconciled?

The answer, of course, points to the need for further research, thus calling attention to how much we know about residence life and just how little we know.

4.4.5 Discussion

As with research at the macro- and meso- levels, data at the micro- level hold a variety of implications for theory and practice.

Theory. Conventional wisdom in the residence literature holds that student development is influenced most by large-scale events and processes distal to individual students, including the character of the university campus or the climate of the residence building. This is not to deny that proximal processes are relevant too (typically using the rhetoric of "peer groups"); they are just not as important. This helps explain why so much of the research in the area is concentrated at the macro- as opposed to the micro-level. Development, it seems, trickles down from above.

Micro- level research, however, suggests that this is simply not the way residence life systems work. In fact, if anything, development trickles up from below, from where resident students actually live, work, argue and play. Development arises, first and foremost, in the interaction between roommates through time. Students are challenged to create meaning, develop tolerance, work through conflict and solve academic and interpersonal problems. Even if these relations do not evolve into friendship, as is often the case, they will still be of benefit. Should a quality relationship evolve, the developmental benefits will be substantial.

Of course, this is necessarily an oversimplification. These relationships, whatever their quality, do not develop in a social vacuum. They are continually subject to shaping influences from peer group others, events and processes on their floor, related processes in their building, and still more distal processes in the larger university environment. It is the configuration of these various processes, all simultaneously on-going and many interdependent, that will account for the developmental benefits conferred in any given context. Further, satisfaction (or dissatisfaction) in one context will frequently generalize to others, these results will feedback to the first, and so on, in an endless loop.

While true, none of this effectively refutes the central thrust of the findings at the micro- level: student development begins and is maintained at this level. This is so at least as long as students remain in residence. Recall that with growing maturity they will - indeed, they should - move on to independent living in the community. This suggests, first, that residence systems are the key to student development, certainly among freshmen, and, second, that development is primarily social in character. It is in evolving new patterns of thinking, feeling and behaving that readiness for other sorts of development, specifically academic development, begin to emerge. While GPA per se appears largely unrelated to students' residence experience, its precursors - including academic orientation, educational aspiration and persistence - are related.

The development of these important attributes are **not**, however, derived solely from roommates or indeed any other on campus. They arise (or fail to arise) in relations between students and their parents. The influence of such relations, while seldom acknowledged in the literature, must be stressed here. Students come into residence with, so to speak, their 'families in their head'; with established patterns of interaction, affect and meaning (see Benjamin, 1983, 1988). These may facilitate or impede their integration both with residence life in general and with roommates and other peers

in particular. Moreover, insofar as parent-student relations will typically be on-going, they may facilitate residence-based growth and development or impede (or even nullify) it. In this sense, my earlier claim, that residence life provides the setting for student development, requires revision. Student development is coincident with the evolution of primary relationships, although mediated by the characteristics of the context(s) of their occurrence. In practice, this means that student development evolves both at home and in residence, with processes in one relationship setting predominant in some contexts and processes in the other relationship setting predominant in other contexts. Indeed, the interaction between the two may at times be more important than either alone.

This last point speaks to the issue of the degrees of interdependence between systems. Just as processes in the classroom, the library and the residence room may be interdependent to varying degrees, the same may be true of the relationship between processes in the family and in relations between roommates. This suggests the fourth and final generalization: **the degree of interdependence between family and roommate relationships will be directly proportional to their joint developmental impact.**

This is intended to suggest a number of things. First, the involvement of residence students with parents and peers will vary significantly. Some students are quite distant from their parents and will rely heavily on their roommates for support and assistance. In other cases, the reverse will be true, while, in still others, student isolates will obtain, connected to literally no one. Second, in most cases, some sort of relationship to both parents and peers will be on-going, with both exerting some degree of developmental influence. Third, the patterns which characterize these relations will also vary, from those which facilitate development to those which do harm. Fourth, when functional relationships exist in both contexts, the result will be **multiplicative**: the developmental benefits conferred by their interaction will be more than would otherwise be provided by either of them alone; such students will show significant growth. But the reverse will also hold; when dysfunctional relations hold in both contexts, the results will still be multiplicative; such students will wither. The least understood arrangements are those in which a functional relationship exists in one setting while a dysfunctional relationship exists in the other. It seems reasonable to expect some degree of compensation, but on what basis and in which direction remains unclear.

In short, to understand the relational course and the developmental consequences of roommate relationships requires that **the on-going involvement of the participants with primary others** must be taken into account. To some extent, this interpretation helps explain why predictors of roommate compatibility have proven so illusive: **researchers have consistently emphasized static attributes (eg. personality) in an effort to understand relationships characterized by dynamic processes.**

Finally, a word about the interface between meso- and micro-levels processes. With respect to the structural character of systems - their hierarchical organization - the processes at the level of the floor provide the environmental context within which roommate relationships evolve and change. As such, the former appear to mediate the latter. While the interpersonal experience and the respective family processes of two roommates may make the development of a compatible relationship between

them likely, it may still be undermined, for example, by their respective allegiance to divergent peer groups on their floor. Viewing the evolving relationship between these roommates in social isolation makes the breakdown of their relationship appear curious, tragic or incomprehensible, depending on your point of view. Seeing it in context makes this outcome appear reasonable, if sad.

Practice. The implications which flow from this section pertain primarily to the eighth and final thematic issue, namely, the relationship between parents and their student offspring. However, much that is said below will apply as well to relations between roommates.

The major first principle here is generic in character:

**The development of students will be influenced most by their relationship with and to significant others in their life, irrespective of their locus.**

Students, like all of us, are not merely social by choice; rather, we are social in essence. The environment in which we live and which we shape and by which we are shaped consists less of buildings and events than of people, especially those people who we see as important to us. Moreover, this transcends physical distance, for whether physically present or not, their significance resides in the fact that they live, not out there, but rather in our very heads. So it is with roommates, parents, siblings and others, for it is the relationship between students and these 'others' that is the key source of student social development. In this sense, those closest to students - roommates and parents - are those with the greatest developmental potential, either positive or negative.

In turn, this perspective coupled with the evidence reviewed above, suggests a number of additional implications:

**Parents are an on-going resource for resident students and so warrant the attention of residence staff.**

**The effects of parent-student relations should be routinely monitored.**

**Efforts to influence parents may be effected primarily via liaison.**

The general tendency on the part of residence staff is to treat parents as if they did not exist. When parents are recognized, this is often because staff are forced to do so when confronted by an irate parent making some inquiry about their son or daughter. The first implication, above, is intended to make clear that this view of parents by staff is entirely wrong-headed. By means of their on-going relationship, parents are involved in residence life, whether staff recognize it or not. This being so, it is more reasonable to see parents as potential resources who can not only influence the social development of their son or daughter, but can relieve residence staff of some of the burden of running the residence system.

This suggests that there is much to be gained and very little to be lost by maintaining contact with parents. This would involve keeping parents informed on an on-going basis with those events and processes which animate the residence in which their son or daughter reside. Perhaps taking the form of an informal newsletter, this would be general in character, and would not disclose any confidential

information specific to any given resident student. But it would dispel any misconceptions parents might have - especially those parents who themselves have never been to university - and provide parents with information on the basis of which they would be free to ask informed questions of their student offspring.

Further, given that the parent-student relationship may enhance or inhibit student development, this suggests that such effects be monitored on a routine basis. The same applies to student-roommate relationships, and includes the degree to which roommate- and parent-student relations are congruent or divergent. All of this need not involve intruding on student privacy. Rather, it would simply be part and parcel of RA training as participant observers. In this sense, students themselves would self-select the information they disclose or withhold with regard to the on-going state of these relationships. In many cases, the data suggests that students themselves approach RAs with such problems. Alternately, it is well within the aegis of their role for RAs to approach students who appear in some distress.

On the one hand, RAs could then serve as resource persons, referring students to wherever appropriate help would be available. For further discussion of the nature of such referral sources and of the assistance they can provide, see Benjamin (1988). On the other hand, such relational difficulties, whether with roommates or parents or both, can serve as the focus of floor programming. Indeed, in a recent presentation I gave on the topic to in-coming freshmen, the response was not only very positive, but many students would have liked to pursue "changing relationships" further on an on-going basis, as part of a discussion group.

Finally, the fact that parents live elsewhere and are not part of the university system does not mean that residence staff cannot try to influence them in the interests of student development. The influence I have in mind touches on parents very considerable involvement in students' decision to attend university, the specific university in which to enrol, and their choice of program on arrival (see Benjamin, 1988). In other words, residence staff can try to influence student self-selection processes indirectly by influencing their parents. However, residence staff themselves seldom have direct contact with parents, especially prior to the arrival of their student offspring. Rather, this is the task of admissions, and especially that of liaison officers. In turn, this suggests the utility of liaison between residence and admissions staff in the effort to contact parents with the intent of giving them information concerning the character of residence life at their institution. Such efforts might also wish to inform parents of their continuing involvement in and influence upon the development of their student offspring. Put differently, universities in general and residence life staff in particular ignore parents at their peril, and all too often to the detriment of residence students.

## 5.0 SUMMARY

This concludes the substantive review of the residence life literature. It remains to explore the implications of this review for theory, research, and practice. However, in light of the complexity of the data, a brief summary first seems in order.

Substantively, previous efforts to systematize the residence literature have characteristically been pragmatic, issue-driven, incomplete and atheoretical. Methodologically, research in the area is seriously flawed on a variety of grounds. With respect to method, I counsel cautious inspection and critical awareness. With respect to systematization, I conclude that available theory in the area is inadequate to the task and I advance instead an **ecosystemic model**.

This model distinguishes between events and processes at **four levels**: the **suprasystem** level refers to the relationship between the residence and the university systems; the **macrosystem** level concerns the residence life system per se, and especially processes in the residence building or hall; the **mesosystem** level details processes on the hall floor; and, the **microsystem** level processes in the floor room. The model also posits that processes across levels are interdependent, with linkages between and across levels described in terms of **interface processes** and **feedback loops**. The model's four levels corresponds to the major sections into which the review is divided.

The suprasystem level is empirically null, with no studies having explored the relationship between university and residence life systems. Given that substantially the same students constitute both systems, it is reasonable to expect that these systems should be interdependent. At present, this expectation receives support from anecdotal evidence only. It is suggested that research at this level is warranted, and that such efforts should track the interaction between people rather than respect traditional administrative unit boundaries.

The macrosystem level accounts for the majority of research in the literature. Findings at this level, while complex and often inconsistent, do yield a number of general trends: (1) students are typically satisfied with residence living, especially when housed homogeneously, and see it primarily as a opportunity to make new friends; (2) this is especially true when residence students are compared to off-campus students, with the former displaying more development, involvement, educational aspiration and persistence; (3) these developmental benefits do not extend directly to academic performance, but rather indirectly to concomitants or precursors such as academic orientation and intellectuality; (4) such concomitants also vary by perceived social climate, with female halls characteristically supportive, male halls competitive, and coed halls somewhere in between; (5) given the choice, students who self-select into coed or living-learning centres benefit in terms of the concomitants, noted above, as well as broader opportunities for intellectual stimulation and interpersonal relations; fewer benefits accord to same-sex residences, with same-sex all-freshman residences contraindicated developmentally, although preferred by the students in question; and (6) all of the above trends are cross-cut by hall size and population density, with high-rise, high-density residences associated with crowding stress, especially among women.

The mesosystem level has received comparatively little attention in the research literature, with the findings correspondingly mixed. Several prominent trends, however, do emerge: (1) across North America, floor-based residence programs are extremely diverse and show little consistency regarding outcome; their generalizability to other campuses is unknown, although there is some evidence that students' response to their floor experience does generalize to the classroom; (2) similar lack of

consensus characterizes research concerning the selection, training or influence of resident assistants; and (3) peer group relations emerge as extreme potent sources of developmental influence - even more important than faculty-student interaction - mediated by floor homogeneity (positive), room proximity (positive), gender (mixed), floor population density (negative), and architectural design (mixed).

The microsystem level has received moderate research attention. Such effort has yielded few trends: (1) intensive efforts have been made to identify predictors of roommate compatibility, thus far without success; none of four classes of variables (personality; attitudes/values; background; living habits) has achieved predictive validity; (2) the majority of roommates do not subsequently sustain long-term relationships; (3) high quality roommate relationship confer substantial developmental benefits but are correspondingly demanding of roommate communication and interpersonal skills; (4) on-going relations between students and their parents are potent sources of developmental influence, either negatively or positively; to date, such relations have received minimal attention in this literature; (5) room overassignment has few academic consequences but is associated with negative social effects, especially among women; particularly damaging is the possibility of coalition formation in which two students join together against a third, with significant developmental deficits for the resulting isolates; and (6) a variety of design features are identified which affect the perception of room density, including room illumination, the use of partitions, and the extent to which room design is fixed or can be altered by students to suit their requirements.

Finally, interpretation of these data was based on **eight** thematic issues identified as the narrative unfolded. These may be briefly summarized as follows:

The **character of student development** involves a distinction between academic and social development. Contrary to conventional wisdom, this review suggests that social development is preeminent, shaping student identity and interpersonal skills in ways which promote (or impede) the readiness to acquire academic skills. In this sense, the **locus of development** is not in the classroom, or even in the residence room, but rather in any context which facilitates the evolution and maintenance of primary relationships, that is, relationships characterized by closeness and meaning. This suggests that residence life systems which create a sense of community with diversity will confer significant developmental benefits on the students living there. Such systems, however, display tremendous variation across North America such that some systems will indeed provide such benefits, others will be benign, while still others will impede development or even do harm.

At least **five** factors appear related to the degree to which residence life systems provide such benefits. One concerns **gender**. Men and women typically enter university with divergent degrees of preparedness for its social demands. In general, women display more social maturity and sensitivity then men, and have correspondingly different residence preferences and reactions. Such differences are also reflected in patterns of **self-selection**. When given a choice, women prefer small, low-density settings which permits relatively intimate interaction with a limited range of others. Men prefer large, high-density settings which encourage relatively superficial contact with a wide range of others. Such

variation highlights the important extent to which the interaction among residents creates their living environment, only indirectly mediated by considerations of population density and design.

In fact, scattered evidence supports twin contentions: that social processes at the micro- level is the key engine driving student development in residence; and, that this is enacted in the form of **context-specific interaction patterns**. The full range of such patterns thought relevant to student development is not known. However, several likely candidates have been identified. Whereas roommates relations characterized by mutual support, open communication and self-disclosure appear to facilitate development, roommate coalitions appear to impede it. Moreover, roommate relations interact with on-going **parent-student relations**, often in multiplicative fashion, with more (or less) development occurring as a result.

On the one hand, this suggests that student development trickles up from below, from the proximate settings and people with whom students live their lives on a daily basis in residence. Further, this implies that developmental benefits are associated not with any one variable, but rather as the combined result of an ecologically and contextually specific configuration of variables. Such configurations will be distributed on a gradient, with the slope of the gradient determining the extent which benefits will be conferred. In this light, residence programming can be seen as an effect to reduce uncertainty, increasing the likelihood of conferring benefits, but never to the point of uncertainty; in any context, some students will receive more benefits than others.

On the other hand, residence life systems are constituted out of differentiated microenvironments based on roommate and peer group relations. The character of these microenvironments will vary by floor as well as by hall. Moreover, they will interact, feedback between such subsystems sustaining patterns which facilitate or impede student development. Indeed, cross-unit linkages via feedback loops mean that patterns which characterize one context will ultimately affect behaviour in all others with which it is interdependent; positive experience in residence will generalize to the classroom, as will negative experience. Isomorphic patterns across levels also raises the possibility of suprastability, as entire halls become locked into particular patterns of interaction, some positive ("virtuous circles"), others negative ("vicious circles").

This view of residence life systems calls for a **differentiated style of thinking**. For example, with respect to research concerning territoriality, it is not whether density is consequential but rather, (1) what is the nature of the consequences associated with, (2) what particular level of density, (3) among which particular groups of students, (4) in what context(s), (5) over what time period? In regards to time, at least two time intervals must be distinguished: **academic time** and **historical time**. The academic year is sufficient to see marked developmental changes, whereas the meaning or interpretation of such changes will always be specific to an historical epoch; female "independence" meant one thing in the 1950's; it means something entirely different today.

Finally, this ecosystemic approach to residence life was embodied in **four** generalizations which transcend substantive variations in the literature:

1. No matter how clear the trend, it will always require careful qualification.
2. The particular configuration most likely to confer developmental benefits on a particular body of students at a particular point in time cannot be predicted in advance; it will emerge out of the interaction among residents through time.
3. For students in residence, developmental benefits (and deficits) will be directly proportional to the closeness and meaning of events and persons.
4. The degree of interdependence between family and roommate relations will be directly proportional to their joint developmental impact.

## 6.0 IMPLICATIONS

In closing, I will explore some of the implications which derive from this review as regards theory, research and practice.

### 6.1 Theory

Let me begin much where I began in the introduction, namely, with the utility of theory itself. While the extant literature is not devoid of theory, it is clearly not a central concern. Where theoretical concerns do come into play, it is either in fragmentary form or peripheral to residence life (eg. environmental psychology). The result is strikingly reminiscent of the venerable Sufi tale of the elephant and the 12 blind men: each was sure he knew best what the elephant was like based on his detailed examination of only one of its parts; none was able to appreciate the elephant whole.

The present review suggests that this approach to knowledge building is doomed, especially given the now obvious size and complexity of the literature in question. Theory alone can provide the basis for developing a unified picture of residence life with all of its wonderful and frustrating complexity. As important, it is indispensable in disposing of the various myths, stereotypes and traditional beliefs which permeate this literature. While necessary, such debunking would be empty if it offered nothing in return.

In this case, the alternative I advance involves an ecosystemic portrait of large systems. Its special utility rests with the fact that it is expressly designed to allow proponents to move easily across levels of organization without distortion. It is just as potent in striving to appreciate resi-dence systems across North America as it is in elucidating the dynamics of roommate relationships. Further, it emphasizes the organized linkages which join subsystems. As we have seen, the university is constituted of interdependent, not isolated, parts. This is hardly a novel insight, yet this theoretical perspective has not found its way, in any serious sense, into the residence life literature. On the basis of the present review, it is time this changed. I suggest that an ecosystemic perspective has much to offer if only researcher and practitioners would make the effort to use it.

To do so, however, will require an important change in thinking. Throughout this review, I have been at some pains to stress the need for what I have called a differentiated style of thinking,

much in keeping with an ecosystemic model. This means three things. First, it involves being as clear as possible concerning the questions which drive research. This requires that effects, people, places and temporal periods be distinguished, and kept separate (though connected) throughout the research enterprise. Second, it pays inordinate attention to issues of context. All behaviour in residence life systems vary across specific contexts and is mediated by the demand characteristics within these contexts. Such contextual specificity does not prohibit development of general propositions, but does move away from 'grand' theory, requiring that hypotheses and propositions be carefully qualified. Third, it recommends a multivariate and interactional vision or perspective. The phenomenon under study, residence life, is complex. Before we develop simplified models or theories, we must first seek to develop models which, in their complexity, are in keeping with the phenomenon under study. It follows that an ecosystemic perspective recommends the following theoretical rule of thumb: **complexity before you simplify.**

A case in point concerns the notion of 'level'. This is intended as a metaphor, not an empirical description of reality. It serves to organize or 'punctuate' how we see the world and in that sense is theoretically potent. With reference to residence life systems, it helps make the complexity of such systems accessible. Each 'level' of the model, for example, is itself seen as multileveled in character. If the roommate dyad is the proximate reality of residence life, then it exists within ever expanding layers of activity: first, the microenvironment of the peer group (and their respective families); next, within a given segment of a floor, then on to the patterns composed of interacting microenvironments on the floor, the macroenvironment of the hall and the supra-environment of the university. All will be developmentally influential, but as a direct function of increasing proximity.

The result is that this approach provides a starting point from which meaningful inquiry can begin while not abandoning the insight that the parts are interdependent and thus part of an on-going feedback loop.

It will now be apparent that an ecosystemic perspective is conceptually demanding, but one which I believe makes the effort worthwhile. It is a new way of seeing and one which permits insights where before there was merely naive speculation or worse still, ignorance.

### 6.2 Research

As for research, perhaps the most important implication to be drawn from the present review is a rather obvious one, namely, that residence life is extraordinarily complex. For illustrative purposes consider Figure 3. Assembled based on an informal survey of the studies reviewed for this paper, it lists nothing less than 145 variables that one or another researcher thought related to student development in residence life. Moreover, note that these variables fall into six discrete classes, with little overlap.

Figure 3. Selected variable thought to have development significance in the residence life literature.

A. SOCIODEMOGRAPHIC VARIABLES

1. Academic Year
2. Geographic Origin
3. Parental SES
4. University Type
5. GPA
6. Marital Status
7. Race
8. Birth Order
9. Gender
10. Religion
11. High School Grade
12. Parental Education
13. Age
14. Number of Children
15. Ethnicity

B. INTRAPERSONAL VARIABLES

16. Satisfaction
17. Identification
18. Maturation Level
19. Self-Confidence
20. Religiosity
21. Political Orientation
22. Expectations
23. Initiative
24. Developmental Level
25. Temperament
26. Report Feelings
27. Psychological Stress
28. Academic Orientation
29. Perception Stability
30. Perceived Control
31. Student Attitudes
32. Problem Type
33. Learned Helplessness
34. Locus of Control
35. Academic Work
36. Hall Type Preference
37. Personal Adjustment
38. Self-Esteem
39. Personality*
40. Academic Aspiration
41. Academic Aptitude
42. Values
43. Problems Reported
44. Affective Response
45. Perception of Environment
46. Crowding Stress
47. Perceived Social Climate
48. Perception Discrepancy
49. Sexual Identity
50. Curiosity
51. Tension
52. Child Socialization
53. Loneliness

C. INTERPERSONAL VARIABLES

54. Alcohol/Drug Use
55. Hall Social Activities
56. Family Patterns
57. Ratio Resident Type
58. Value Similarity
59. Group Stability
70. Smoking
71. Faculty Involvement
72. Sexual Relations
73. Peer Group Formation
74. Interpersonal Attraction
75. Communication Skills

Figure 3 (cont'd)

60. Capacity for Intimacy
61. Trust
62. Sense of Belonging
63. Interact with Faculty
64. Help Seeking
65. Help Reciprocity
66. Perceived Acceptance
67. Social Competence
68. Ease Make Friends
69. Network Size
76. Frequency Contact Faculty
77. Parent-Student Relations
78. Sense of Community
79. Relationship Quality
80. Help Giving
81. Stereotypy
82. Conversation Time
83. Shared Information
84. Availability of Others
85. Network Density

D. INTRAPERSONAL VARIABLES

86. Helpfulness
87. Balance re Roommate
88. Self-Disclosure
89. Listen with Acceptance
90. Coalition Formation
91. Interpersonal Conflict
92. Interpersonal Congruence
93. State Feelings
94. Social Isolation
95. Interpersonal Tolerance

E. ADMINISTRATIVE VARIABLES

96. Visitation Rules
97. RA Performance
98. RA Training
99. Residence Programming
100. Transportation
101. Rule Changes
102. Assignment Procedure
103. Administrative Structure
104. Student Misconduct
105. Health Engenderingness
106. Housekeeping Services
107. RA Selection
108. Hall Governance
109. Food Services
110. Rule Restrictiveness
111. Administrative Contact
112. Hall Homogeneity
113. Changeability
114. Building Maintenance
115. Overassignment

F. ARCHITECTURAL VARIABLES

116. Room vs Suite
117. Special Interest Areas
118. Hall Design
119. Functional Distance
120. Group Room
121. Perceived Room Size
122. Window View
123. Room Decoration
124. Study Facilities
125. Hall Population Size
126. Floor Design
127. Room Door Location
128. Floor Population Size
129. Room Illumination Level
130. Placement of Facilities
131. Room Personalization

Figure 3 (cont'd)

G. MISCELLANEOUS VARIABLES

132. Noise Level
133. Persistence
134. Activity Level
135. Study Time
136. Range of Activities
137. Physical Symptoms
138. Historical Trends
139. Perceived Privacy
140. Time on Campus
141. Attend Counselling Centre
142. Study Habits
143. Attend Health Centre
144. Medication
145. Time

* Personality has included: intellectuality, flexibility, liberality, affiliation, "type", autonomy, dependence, exploration, assertiveness, manipulativeness, submissivenesss, hostility, and aggressiveness.

The significance of Figure 3 is that in most cases, researchers in the area have tended to select one or a few variables from one or two classes and then looked for associations between them. While doing so, all other variables have typically been permitted to vary randomly. One result is high cross-study variation and correspondingly low cross-study comparability. Another is the natural tendency to develop static formulations that have unintentionally been **decontextualized.**

With respect to the first problem, the answer is to develop research designs which, if not themselves multivariate, are at least sensitive to the multivariate character of residence life contexts. This approach would at least reduce the likelihood of studying room density while leaving floor and/or hall density unattended.

The answer to the second problem follows Bronfenbrenner (1979) in calling for research guided by the principle of **ecological validity.** This approach requires that researchers acknowledge that all behaviour occurs in some **specific** context and that all descriptions of behaviour include the appropriate contextual markers. The fact that young males are responsible for most hall damage is merely interesting. The fact that they may be failing and are having problems with their girlfriends is contextually specific and thus provides some clues regarding potential intervention strategies.

It will be apparent here that theoretical differentiation has practical consequences for research. In calling for ecological validity, it simultaneously recommends obsessive concern with detail and especially experiential data. This is inconsistent with current trends in the literature which favour self-report measures that are cheap, easy to distribute and score, and which yield readily manipulable data. The alternative suggested by an ecosystemic approach would recommend **triangulation** instead. Methodologically, this is the practice wherein multiple measures are used to explore the same phenomenon. Consistent with such an approach is the joint use of self-report and qualitative data,

especially depth interviewing. The latter alone will provide experiential insight that retains all contextual markers. Obviously, however, it is much more expensive (both in time and money) than self-report measures, and can thus only be applied to relatively small samples. Nevertheless, used in conjunction with third-party observation, it is the only method that will provide the sort of data that are required.

This raises a related issue, namely, the preferred focus of inquiry. To date, most research in the literature has tended to focus on resident students conceptually seen one at a time. The result has seen the widespread use of static attributes (eg. personality) in the effort to describe dynamic relationships. Apart from the paradoxical character of such data, its signal failing is that it sheds no light whatever on how such relationships arise, how they are maintained and how they change. In particular, what are needed are data which describe the specific interaction patterns associated with such things as roommate compatibility, quality relationships, student adjustment, crowding stress, and coalition formation.

Such research inquiry would not be limited to students alone, but would include virtually all others with whom students interact on a regular basis, including parents, siblings, faculty, residence staff and administrative staff. As I have previously suggested, this would require tracking the interaction among people while ignoring artificial administrative boundaries. It would include, as well, attention not only to behaviour (eg. who talks to whom) but also affect (eg. how students and others feel about each other) and meaning (eg. what does it mean to live in residence, be part of a group or be isolated from them).

### 6.3 Practice

Finally, the above review has something to say to practitioners. In closing, I will address the practice implications of this review in two ways: first, with some general remarks; second, with comments regarding six higher-order implications.

General Remarks. The plight of residence planners will be familiar to all who routinely work in large, complex systems. It is perhaps captured best by the following story well known to consultants of all sorts.

It seems an air force general was responsible, among others things, for overseeing a number of research projects whose purpose was to increase the effectiveness of new recruits. Since he himself has no research expertise, he was dependent upon psychologists hired for the purpose. Following a presentation by one such consultant, the general, en route back to his office, suddenly turned to his assistant and said, "Quiggley, from now on I want you to hire only one-handed psychologists!" Startled, the young man stammered, "B-but why, general?" "Well, godammit, man, whenever you ask one of those fellows a simple question, they always answer with, "Well, on the one hand..., but on the other hand."'

The "it depends" nature of the answers available to residence planners is associated with the complexity of residence life systems. Certainly, nothing in the present review has suggested that there are any easy or simple answers; in fact, quite the contrary.

However, this is not to say that nothing can be done. Indeed, this review does provide, if not definitive answers, then at least several helpful guidelines.

The first is a modern variant of 'know thyself', namely, 'know thy residence system'. This is a call for systematic data gathering by residence life staff which explicitly recognizes that each system will invariably have unique characteristics. Indeed, such characteristics will be notably ephemeral insofar as the resident population changes every year. This suggests that the only way to develop programs that work is to create them with your system and your students in mind. Quick application of programs used elsewhere is likely to produce unreliable results insofar as their generalizability will take the form of a gradient of similarity; if your institution is even modestly different, the program will likely not have the same effect as reported in the literature. In a similar vein, the variety of trends reported in the literature are just that, general trends, which apply in the abstract but may have various degrees of relevance to you.

Next, start where your students are. As noted repeatedly, students' experience of residence life involves participation in a context specific microenvironment. As a function of hall size, such environments may vary considerably or not at all. The effort to tailor programs such that they serve the developmental requirements of your students makes it necessary that you know them well, especially as regards the operation of these microenvironments. When characterized by high quality roommate relations and considerable student involvement, little developmental programming will likely be required. But what of halls in which the reverse is obtained, especially when student dysfunction has become suprastable? In this instance, not only will programming be critical, but it may need to be joined with other forms of intervention in an effort to disrupt on-going systemic processes.

Third, the direction of programming and intervention should, in general, be to promote 'community in diversity', and, in particular, the evolution of high quality primary relationships. In practical terms, this will mean assessing existing facilities and services in terms of their present potential to facilitate or promote such relationships. Various design features have already been noted which serve this purpose, including low-density housing, the partition of high-density floors by lounge space, room personalization programs, roommate communication workshops, assignment by student preference, and so on. All hold some promise, though they must be adapted for use in your institution. In addition, the on-going involvement of off-campus primary others cannot be overemphasized. Parents, siblings, relatives and non-student peers influence what goes on in residence even though they do not live there; ignore their influence, both positive and negative, at your peril.

Fourth, student development is ultimately your responsibility. I mean this in two senses. First, it will now be apparent that during the first two years of university, student social development will be centred on hall life. Second, student preferences will not always be consistent with what extant research suggests promotes student development. A case in point: high-rise, high-density, all-male, all-freshman residence halls. These are overwhelmingly preferred by in-coming male freshmen but do not appear consistent with their social development and maturation. In this sense, residence programmers have a responsibility to enact policies and programs thought to promote student development despite the fact

that they may be unpopular. This suggests that a balance be stuck between individual freedom and institutionally imposed constraint.

Finally, in light of the emergent character of processes at the hall, floor and room levels, the likelihood that programming will have unanticipated consequences approaches certainty. While one can and should make every effort to reduce uncertainty, the simultaneous interaction of multiple variables makes reducing it to zero virtually impossible. The recommendations advanced above will help, and the insights provided by the above review may also prove useful, but the "it depends" character of residence life systems is not to be denied. It is comforting to know, however, that in most cases, students will emerge from their experience in residence having felt enriched by it and having grown significantly in the process.

Higher-Order Implications. To this point in the narrative, I have identified a total of 40 practice implications. Below, I have collected them together and present them as Figure 4.

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**Figure 4. Summary of practice implications**

DEVELOPMENT: SOCIAL

1. Residence life staff can contribute most to student development by facilitating the interaction among student peers.

2. Most developmental benefits will accrue when peer interaction has particular characteristics.

3. These characteristics will vary as a function of the size of the peer group in question.

4. When speaking about groups larger than dyads, developmental benefits will be associated with peer relations which promote a feeling of community, including feelings of trust, membership, safety, and acceptance.

5. Given that student characteristics vary widely, the peer group communities to which they may wish to become attached should display similar variety.

6. Such communities should promote both academic and social objectives.

LOCUS: HALL

7. Residence life staff have more responsibility than any other group on campus to facilitate student social development.

8. Efforts to facilitate student development must be proactive rather than reactive.

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Figure 4 (cont'd)

9. Student development may be facilitated by floor programming which is explicitly developmental in character.

10. Environmental management efforts will yield developmental benefits to the extent that they facilitate primary relations among resident students.

11. Efforts to facilitate student development should be multidimensional in character.

12. One such dimension should emphasize formal student self-determination.

SELF-SELECTION

13. There are two ways in which student self-selection can be used to promote student development: naturally occurring and institutionally initiated.

14. The processes which emerge out of natural selection must be carefully monitored.

15. Residence units can be created with particular sorts of students in mind. Such students can then be specifically recruited.

16. Given the emergent character of group processes, careful monitoring will still be required even when selection is institutionally initiated.

17. All forms of self selection are not equally acceptable.

18. Interventions must be based on information collected for that purpose.

CONTEXT-SPECIFIC PATTERNS

19. Effective intervention aimed at facilitating student development requires that residential staff be confident regarding their intentions and powerful regarding their methods.

20. Both confidence and power ultimately derive from staff control over detailed information concerning those context-specific patterns of student behaviour which obtain within specific residence halls.

21. Students should be seen as primary allies.

22. Central information concerns the patterns of behaviour which characterize particular groups of students within particular contexts, with such patterns evaluated against developmental standards.

23. Patterns which support student development should either be left to evolve or be actively encouraged.

Figure 4 (cont'd)

24. Patterns which impede student development should either be inhibited from further elaboration or actively disrupted.

25. Relevant information concern student patterns of behaviour is distributed across the university system, such that liaison efforts offer significant benefits with respect to information acquisition.

PARENT-STUDENT RELATIONSHIP

26. The development of students will be influenced most by their relationship with and to significant others in their life, irrespective of their locus.

27. Parents are an on-going resource for resident students and so warrant the attention of residence staff.

28. The effects of parent-student relations should be routinely monitored.

29. Efforts to influence parents may be effected primarily via liaison.

DIFFERENTIATION

30. Mindful action requires information that is not only pattern specific, but also context specific.

31. Information regarding the organization, flow, location and meaning of behaviourial patterns is central to developmentally sensitive planning and programming.

TIME: HISTORICAL/ACADEMIC

32. Residence life systems tend to be influenced most by short term events and processes.

33. Short term patterns, however, are always embedded within historical time. Liaison with relevant academic departments is essential in order that residence staff have access to information regarding long term trends relevant to student development.

34. Liaison with relevant academic departments is essential in order that residence staff have access to information regarding long term trends relevant to student development.

GENDER

35. In many ways, men and women experience the world differently. In turn, they make different demands on residence life systems.

36. Gender differences are relative, not absolute; there will always be men and women that deviate to varying degrees from the norms of their gender.

Figure 4 (cont'd)

37. Developmental benefits will accrue when men and women are afforded the opportunity to interact.

38. The developmental requirements of men and women converge in some respects, diverge in others.

39. Gender-specific programming should be seriously considered.

40. Some programming should be mandatory, while other programming may be left voluntary.

In closing, however, I have extracted from this list **six** higher-order implications. These seek to capture the key themes embedded in the larger set and thus sketch the ways in which current practices in residence life systems would need to change to accord with the ecosystemic model being advanced here.

1. **Developmental Orientation.** At present, many of the universities and colleges across North America have been persuaded as to the validity of the student development perspective. Rhetorical acceptance and serious commitment, however, are two quite different things. On the one hand, this review suggests that the former is rather more common than the latter. Efforts to enact, in practice, a commitment to student development has been piecemeal at best, effectively absent at worst. On the other hand, it now seems clear that implementation of a carefully thought out program dedicated to student development would involve major change. At the very least, such a commitment would need to encompass the entire institution and **not** merely the residence life system. In turn, the practice goals of all segments of such institutions would need to be complementary, with some level of suprasystem planning a prerequisite. Recognition of the differences between academic and social development would also be required, as would some effort to articulate specific operational goals in each domain. In short, **serious** commitment to a student development perspective is, in fact, a commitment to **systemically mindful action.**

2. **Ecosystemic Perspective.** However, acceptance of a student development orientation is, by itself, not enough. Needed too is a thorough grounding in ecosystemic thinking. This would need to include key figures throughout the institution, for in practice, universities operate as systems, that is, as organized assemblages of interdependent parts.

For some, such a view may be threatening, in effect challenging their hard fought and on-going battle for recognition of their formal autonomy. While understandable, this reaction is short-sighted in the extreme, for it fails to recognize the functional realities of university life: directly or indirectly, the

actions and decisions of any one segment will impact on the behaviour of adjacent segments and, ultimately, on the university suprasystem per se. It follows that university actors either pretend that interdependence does not exist or they relate together, recognizing that it is in their best interest to do so. In short, they cannot not select between unmindful or mindful action.

For residence life staff in particular, mindful action means systematic and concerted effects at liaison - with academic departments, with admissions, with registration, and so on. While residence staff may have the proximate responsibility for student social development, they do not have this as their ultimate responsibility. Rather, that resides with the university as a whole. To effect their mandate, then, as effectively as possible, residence staff cannot do it all by themselves. They need the on-going assistance and cooperation of others, just as those others need them. Only a meaningful and on-going partnership between various segments of the university will serve the developmental needs of students best.

3. **Proactive Intervention.** That the responsibility of student development rests with the university as a whole is not to say that all subsystems have an equal role to play. As this review makes clear, at least as regards student social development, the role of residence life staff is preeminent. This means that student development should not be left to chance; rather, it should be the focus of concerted and mindful action on the part of residence life staff. In other words, mindful action should involve proactive intervention. Such intervention would be intended either to promote and enhance processes which contribute to student development and/or to interrupt and diminish processes which undermine it.

The significance of this implication is that it stands in sharp contrast with the reactive stance now common in residence life systems. This is not to deny the importance of enforcing rules and regulations or responding to problems. Rather, it is to argue that this serves poorly the larger concern with student development, and fails too to see residence systems as systems.

4. **Information Requisites.** Whatever the level of commitment to either a student development orientation or an ecosystemic perspective, proactive intervention must be based on more than faith or goodwill. It must be based on information regarding the patterned behaviour of resident students. This means rethinking the roles and responsibilities of residence staff, from the RA to the area director. Trained as participant observers of group process, RAs would include, among their other responsibilities, that of data gatherer, passing the information thus acquired 'up the pipe'. In contrast, area directors, trained in both student development and systems theory, would then have the responsibility of assembling the information and meaningfully translating it into action by means of appropriate policies and programs. In turn, RAs would then provide feedback concerning how well or poorly these policies and programs are working to achieve specified developmental goals.

Put differently, this is to suggest that having conceived of the university as an ecosystem, the residence life department itself be redesigned in ecosystemic terms. This would include not only

monitoring interaction and feedback processes within student and staff groups, but similarly tracking the interaction between them.

5. **Programming Diversity.** This review makes abundantly clear that resident students are not all of a piece. Rather, they are extraordinarily diverse. Indeed, variation in sociodemographics, gender, academic and social preparedness, academic competence, and so on, is the rule. Given a desire to enhance student development, there is clearly no one program or policy, no one perspective or approach - no magic bullet - that will be effective with and for all of them.

The alternative is to **match** students with programs and policies, so that student diversity and program diversity are complementary. The aim is that, within extant resources, there is a program that will be of interest to everyone. This said, a previous distinction is worth repeating, namely, that between core and optional programming. Having something for everyone implies that **everything** is optional; students choose what they like, ignore what they do not like.

While desirable, such an approach cannot succeed, if for no other reason than that what students want and what staff think they need will frequently diverge. In this respect, staff, like faculty, should come to see themselves as **experts** in student development. As such, they should feel free, like faculty, to set what they see as core developmental programming, and make that mandatory. Programming designed to appeal to special groups or interests can be made available on a voluntary basis. The operating rule of thumb, then, should be **freedom within constraint.** Students should be free to choose programs that are consistent with what they perceive as their needs and interests, but only **within** the limits set by residence staff.

6. **Professionalization.** To be a professional in any given field should mean more than just a special title or a salary to match. Rather, it should mean being able to make legitimate claims to special expertise, including an established body of knowledge and the practice skills which flow from it.

In this context, **two** implications derive from this review. The first is that, in the terms defined above, residence life staff cannot yet claim professional status. Their consistent emphasis on practice skills has meant that an established knowledge base has not yet been developed, nor has its absence been of much concern to most practitioners. The result is that practice efforts are often frustratingly unreliable: programs and policies which are successful one year fail the next. Further, some problems are simply recurrent and thus appear to defy easy solution.

The second implication is that professional status is slowly coming within reach. As set out in this review, it is possible to construct a model which serves to systematize extant knowledge, suggest novel ways of conceptualizing a variety of longstanding problems, point to alternate forms of training, and at least begin to suggest ways of developing new methods of practice. This is **not** to suggest that an ecosystemic model is the **only** way to think about residence systems or necessarily the best way to solve residence life problems. But, in the absence of any meaningful alternative, it is strikingly useful

in at least one respect: it explicitly recognizes the need to create a knowledge base as a prerequisite to the professionalization of residence life practice. Such professionalization can only work to improve our efforts towards the common goal of enhanced student development. To the extent that this review has contributed to this end, its purpose will have been served.

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